The ATLANTIC PROVINCES

Tidewater Lands

University Of Alberta
0 0000 58800 67

REGIONAL STUDIES OF CANADA

W. J. GAGE LIMITED • TORONTO

FC
75
T65
1970
v.04
C. 2

CURR

Ex libris
Universitatis
Albertaensis

QUAECUMQUE VERA

Regional Stud[illegible]anada

Southern Ontario—Workshop of the Nation
Northern Ontario—Land of Buried Treasure
Quebec—French-Canadian Homeland
The Atlantic Provinces—Tidewater Lands
Manitoba—Where East Meets West
Saskatchewan—Land of Far Horizons
Alberta—Where the Mountains Meet the Plains
British Columbia—Mountain Wonderland
North of Sixty—Canada's Advancing Frontier

LIBRARY
UNIVERSITY OF ALBERTA

REGIONAL STUDIES OF CANADA

The ATLANTIC PROVINCES

Tidewater Lands

Doreen Margaret Tomkins
with George S. Tomkins
and Neville V. Scarfe

W. J. GAGE LIMITED • TORONTO

COPYRIGHT © W. J. GAGE LIMITED, 1970
PRINTED AND BOUND IN CANADA
All rights reserved—no part of this book
may be reproduced in any form without
permission in writing from the publisher.

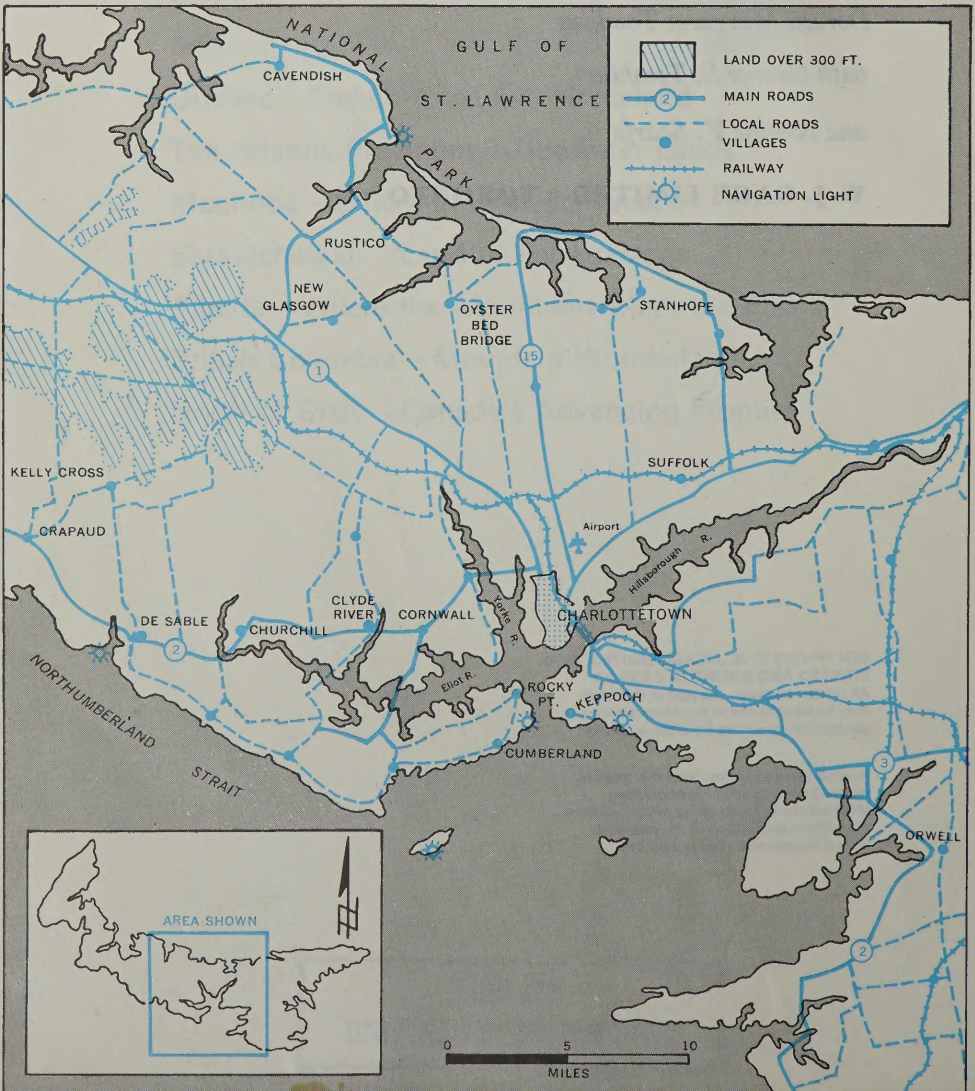
Reproducing passages from this book by
mimeographing or by photographic,
electrostatic or mechanical means without
the written permission of the publisher
is an infringement of copyright law.

The ATLANTIC PROVINCES

Tidewater Lands

In the Atlantic Provinces almost everyone lives near to salt water. This part of Canada has a very long, indented coast-line. Few places are more than fifty miles from the coast, and fewer people live inland than by the sea. Thus the sea seems to have a very important influence on the way people live in these provinces.

5–1. A large-scale map of central Prince Edward Island.



d. Elem

5–2. A typical scene in Prince Edward Island (Canadian Government Travel Bureau).

5–3. Vacationers on Cavendish Beach, Prince Edward Island (Canadian Government Travel Bureau).

2149509

Prince Edward Island — the Million-Acre Farm

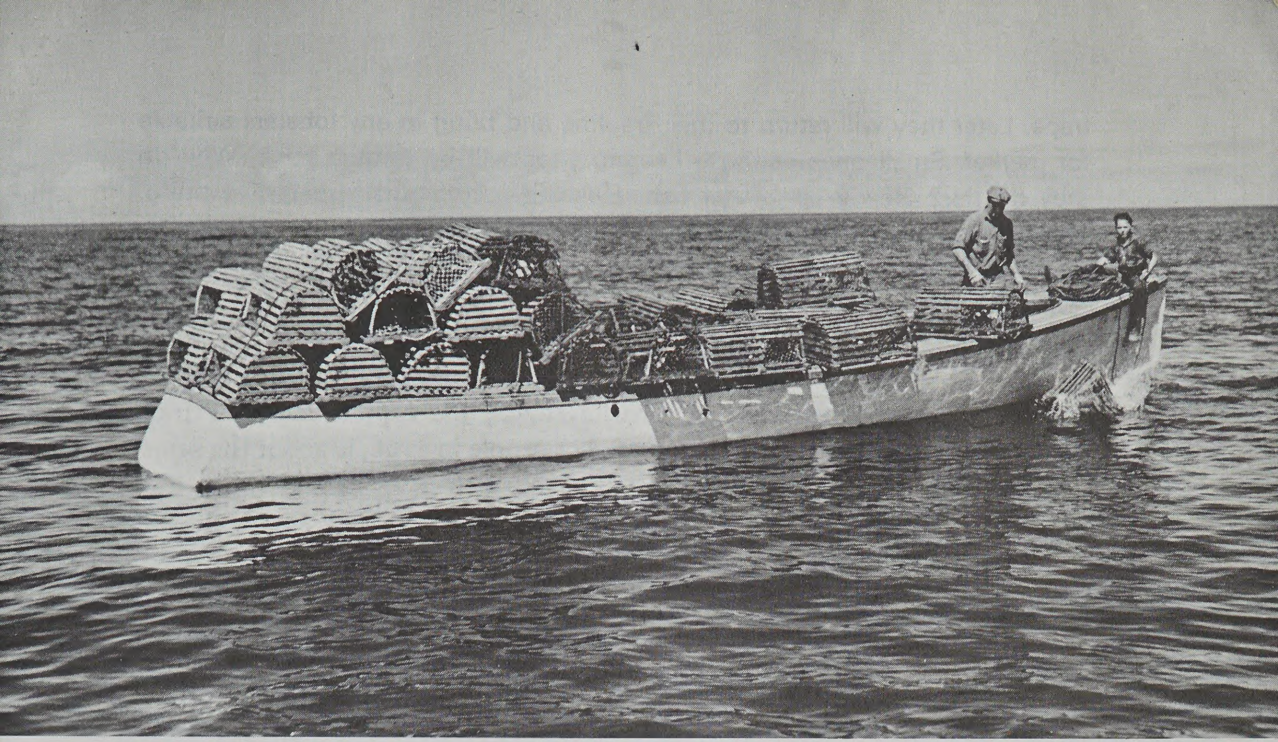
It is said that in July, visitors to Prince Edward Island often outnumber the residents. Figure 5-1, 5-2, and 5-3 show some of the reasons why so many people visit this area every summer.

1. The train from Montreal takes 24 hours to reach Charlottetown. It crosses Northumberland Strait on the ferry *Abegweit.* This boat can carry nineteen railway cars and more than one hundred automobiles. "Abegweit" was the Indian name for the island. It means "cradled on the waves." Why was this a good descriptive name? How far from tidewater are the inland areas of the island?
2. Figure 5-3 shows part of Cavendish Beach. Why does this area attract holiday makers?
3. Here are some climatic figures for Charlottetown.
   Highest daily temperature ever recorded in July — 92 °F.
   Average monthly temperature for July — 66.4 °F.
   Average number of sunshine hours for July — 249.

Why is the summer climate of Prince Edward Island attractive to people from the cities of Southern Ontario, Quebec, and from the eastern United States?

Imagine you are making a trip around the portion of the Island shown in Figure 5-1. Start at Oyster Bed Bridge. What industry is important here? In Rustico you can take a deep-sea fishing trip. The boats are about 45 feet long and the trips last four hours. Tackle is provided, and the Skipper will prepare your catch for the table. You will most likely bring home mackerel or hake. Tourist fishing is an important addition to the income of Rustico fishermen. Before they can take passengers in their boats, they must qualify for a master's certificate and have their boats inspected for safety.

At Cavendish, you will certainly see golfers enjoying the pleasant vistas of the Green Gables Golf Course. The land of this famous course is gently rolling, and overlooks the sand dunes of Cavendish beach with the blue and white breakers beyond. Children in many countries have read all about the red roads and rolling countryside of Prince Edward Island in L. M. Montgomery's book *Anne of Green Gables,* and this area is famous as Anne's home. Follow the local roads across the island to the south coast at Crapaud. How far is this from the north shore at Cavendish? You have crossed the highest land in the province. About how high is it? Return by the villages on the south shore. At Rocky Point, you can see the restoration of the Micmac Indian Village. Wigwams, birchbark canoes, animal hides drying on stretching frames, and hunting and fishing equipment are displayed. How has the landscape of Prince Edward Island changed since the Micmacs used it for their summer hunting grounds?



5–4. Laying lobster traps off Prince Edward Island (Department of Fisheries).

What have you discovered about P. E. I. on this trip?

1. The villages through which you passed — Cumberland, Suffolk, and Cornwall — are names of English countries and were named by early English settlers. "Crapaud" is French for "toad" and "De Sable" means sandy. The French were some of the earliest settlers in the area.

2. How far apart are the villages? This is an area of dense rural settlement. Almost all of Prince Edward Island can be farmed. How does this compare with the Gaspé peninsula? Prince Edward Island is the only Atlantic province where people are spread fairly evenly through the whole area.

3. About 85 per cent of the province is under cultivation. Figure 5-2 shows the beautiful scenery of the agricultural land. Describe the relief. How do you know that livestock are important on this farm? What evidence is there that provision must be made for the livestock in winter? Why is it easy for this farmer to be a part-time fisherman as well? Potatoes for seed are the chief cash crop, and Prince Edward Island potatoes are sold in every Canadian province, thirty American States, and many other countries. Poultry and dairy products are the other main sources of income.

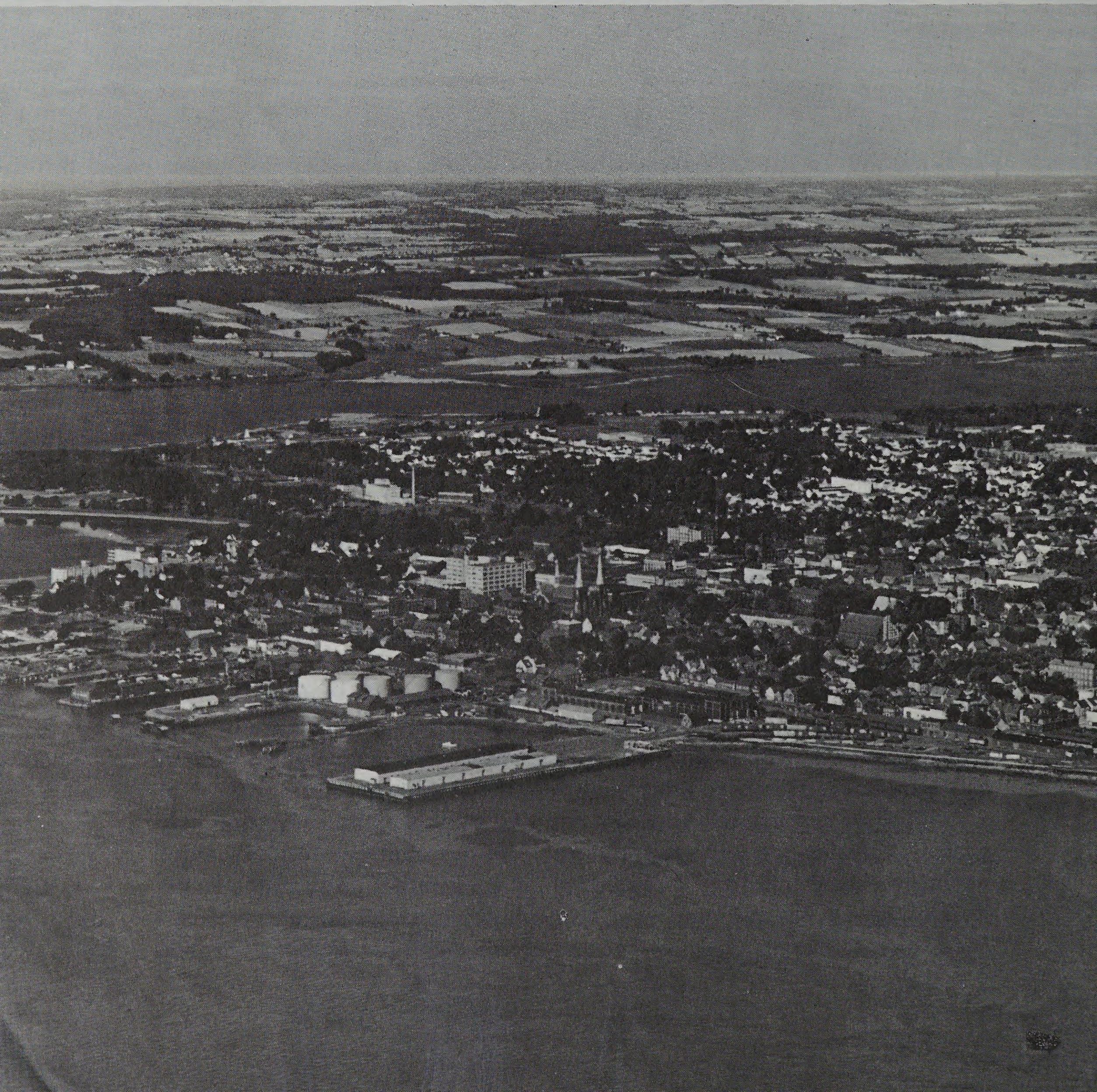
4. How can you tell from the map that boats use the harbors on both coasts? Lobsters are the leading catch, but oysters, cod, halibut, hake, herring, mackerel, clams, and scallops are also important. Most of the fishermen of Prince Edward Island are also farmers, and fishing is a part-time occupation for them. Figure 5-4 shows a fisherman and his son laying his

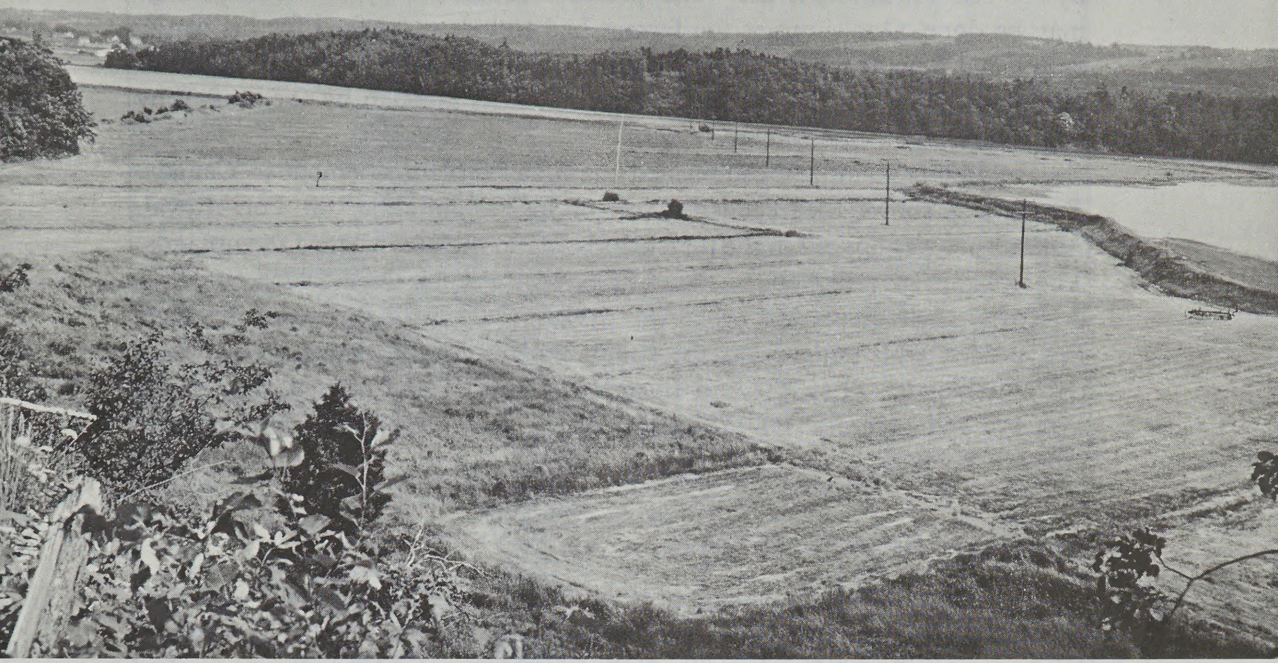
traps. Later they will return to their trapline and bring in any lobsters suitable for market. Small ones or those bearing eggs will be thrown back. Why do they do this? Nearly all lobster fishing is done from small boats like these, and the fishermen are often farmers who may also add to their income by woodcutting or providing tourist service.

The chief city of Prince Edward Island

Figure 5-5 is an aerial view of Charlottetown, the capital city of Prince Edward Island. Charlottetown, with 18,427 people in 1966, is about the same

5–5. An aerial view of Charlottetown (Canadian Government Travel Bureau).





5–6. Dykelands on an Annapolis Valley farm (Harold S. Bailey).

size as Brockville, Ontario. Suggest how people earn a living in Charlottetown. Why is it a pleasant place to live?

Prince Edward Island is the only Canadian province with fewer people today than it had a hundred years ago. Why is this so?

NOVA SCOTIA — AN OLD PROVINCE BY THE SEA

In 1616 the Jesuit missionary Pierre Biard wrote of Nova Scotia:

> . . . the whole country is simply an interminable forest; for there are no open places except upon the margins of the sea, lakes, and rivers . . . which are very beautiful, immense fields of grass and pasture.

Later in the seventeenth century another French visitor, Diereville, wrote of the upland soils:

> . . . (they) are not good, and the seed does not come up well in them, it makes no difference how much trouble is taken to bring them into condition with manure . . . there is almost no harvest.

Farming is still difficult in these upland areas today. The marshlands had to be drained and dyked against flooding at high tide. Why did the early settlers choose these areas in preference to the uplands for their first farms? Figure 5-6 shows hay growing on dykelands in the Annapolis Valley. This is some of the most valuable land on the farm. The rich soils were deposited by the sea. However, if the water breaks through the dykes much damage may be done. One summer the farmer had to buy extra feed for his cattle, and spend a great deal on fertilizing the soil to do away with the effects of salt water. How has this farm benefitted from its location by the sea? Why is it sometimes a disadvantage?

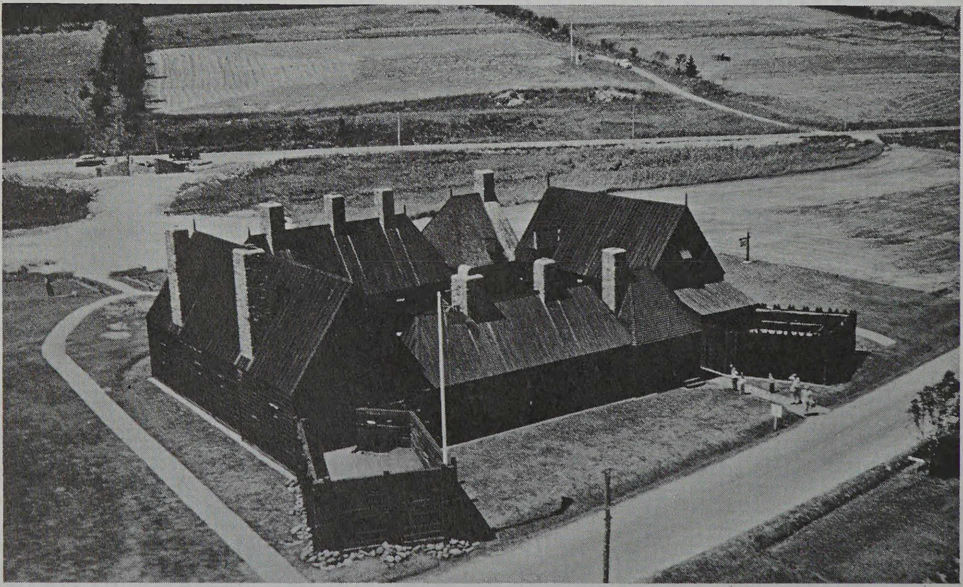
In 1605, Champlain established the first French settlement in Canada. Figure 5-7 shows the reconstruction of his "Habitation" at Port Royal. Agriculture was limited to the marshlands and to the very edge of the uplands. The uplands are still wooded today. When the French were driven out, they destroyed their crops and broke the dykes. They were succeeded by New Englanders, who understood the rough upland country much better than the marshlands. They cut and burned the forests and seeded their fields with rye and potatoes. By 1787, apples and pears were noted as important crops in Nova Scotia.

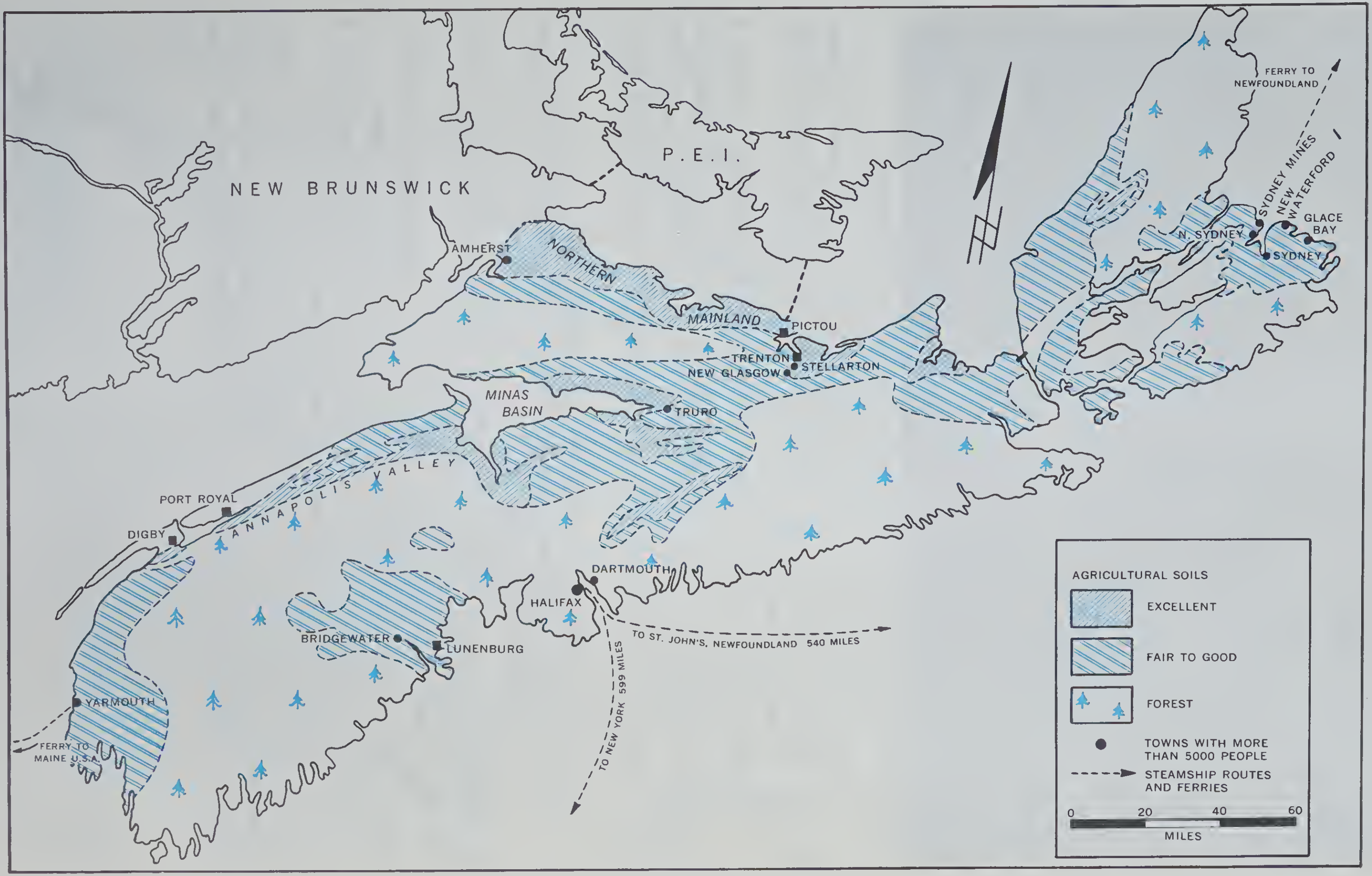
Farming in Nova Scotia today

1. Figure 5-8 is a soil map of Nova Scotia. What proportion is classified as forest soil? These lands are agriculturally unproductive. Lumber is obtained for 1 paper mill and 3 pulp mills. Skilled craftsmen use Nova Scotia lumber to make furniture and boats. Christmas trees are an important export from the forests.

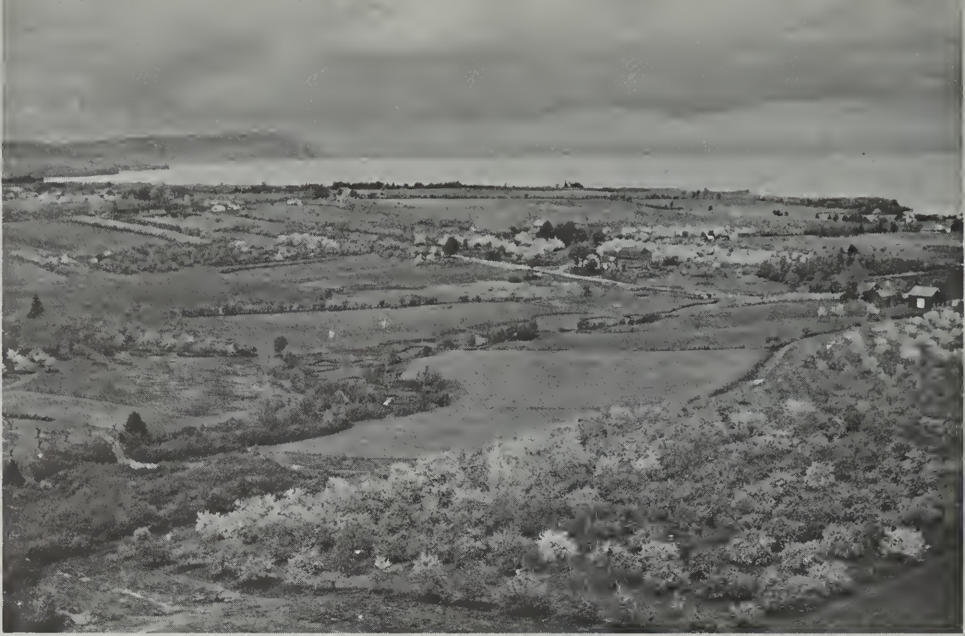
2. Which parts have the best soils? The Northern Mainland is very similar to Prince Edward Island. What type of farming is found here?

5–7. The reconstruction of Champlain's Habitation at Port Royal (Nova Scotia Information Service).





5–8. The soils of Nova Scotia.



5–9. Farmland in the Annapolis Valley (Nova Scotia Bureau of Information).

3. Figure 5-9 is a view of the Annapolis Valley. This is some of Nova Scotia's richest farmland. Using Figures 5-8 and 5-9 give two reasons why this area is favorable to agriculture.

4. What proportion of the land in Figure 5-9 is cultivated? What is the most noticeable feature of the agriculture? Nova Scotia has long been noted for its apples, but many farmers have reduced their fruit acreage since 1940. Here are some of the reasons why one farmer turned to a more mixed type of farming.

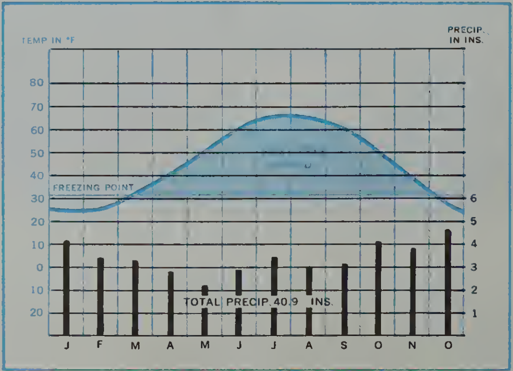
1954 — Hurricane Edna ruined his whole apple crop.
1957 — All the peaches were destroyed by two days of below-zero weather in the winter.
1959 — An early freeze on October 21st ruined one quarter of the apple crop.

After 1940, the demand for apples from the United Kingdom began to decline. Other European markets have now become important buyers.

Fruit is still important in the Annapolis Valley, but eggs, poultry, hog raising, dairying, and potatoes are becoming relatively more important.

5. Figure 5-10 provides information about climate in the Annapolis Valley. Compare this with the Niagara Region. Which of the words in brackets would correctly complete these sentences? Temperatures in the Annapolis Valley

5–10. Climatic graph of Annapolis Royal.

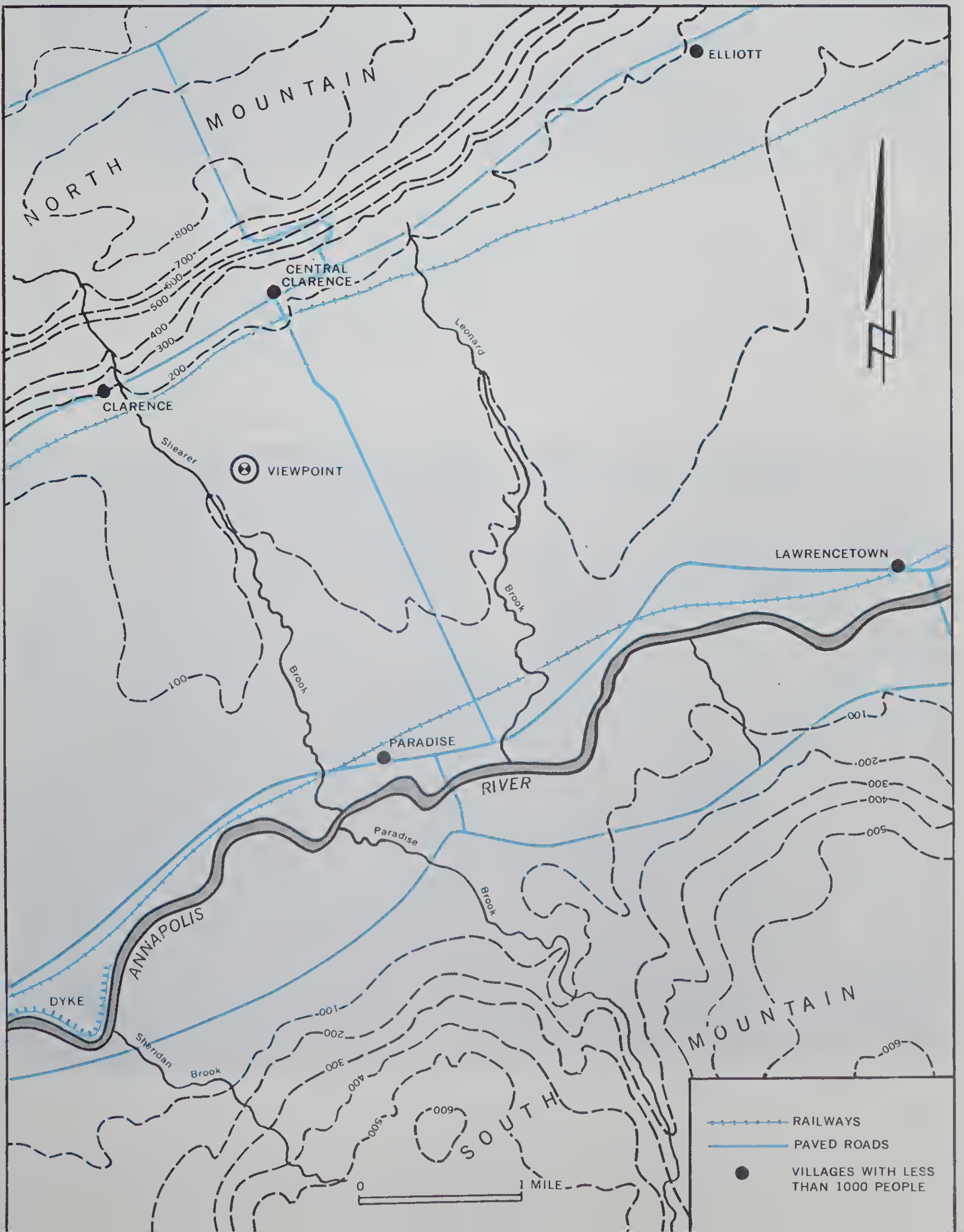


are slightly (warmer, colder) than those in the Niagara Fruit Belt. The precipitation is considerably (heavier, lighter). Why is this area not quite so favorable to fruit growing as the Niagara region? What disadvantage has Nova Scotia compared with Southern Ontario in relation to markets.

6. Figure 5-11 is a large-scale map of the Annapolis Valley. How wide is it? How does the map show that it is almost flat? If you stood on the spot marked "viewpoint" and walked directly north, describe what you would see. Which would be the most tiring part of your hike? How many miles would you go before you reached the edge of the map?

Farming is the most important occupation in the Annapolis Valley, but fishing in the nearby Bay of Fundy is also a major source of income.

5–11. A large-scale map of part of the Annapolis Valley in Nova Scotia.



Using the sea as a source of wealth

The pictures in Figure 5-12 show some ways in which Nova Scotians take advantage of their tidewater location. From Figure 5-8, make a rough estimate of how many miles of seacoast Nova Scotia has. It is really much longer than it appears on the map, because the map does not show the many coves and indentations of the coast.

1. What type of boat are the men in Figure 5-12D making? Nova Scotians have been building boats for more than 200 years, and they were the makers of the famous bluenose schooners of the nineteenth century. Why were Nova Scotia forests of value to the early boat builders? Skilled craftsmen are still building boats. They build many pleasure boats like those in the picture, as well as fishing craft and naval vessels. Sometimes special orders are given to Nova Scotia shipbuilders, such as the building of the eighteenth-century type ship *Bounty* for the film "Mutiny on the Bounty."

2. Why did the man in Figure 5-12A choose this part of Canada to his work? How do the people in this village earn their living? The wooden cages are lobster traps, which are a common sight in Nova Scotia fishing villages and coves. The town of Pictou is the centre of Canada's most important lobster fishery. Produce is sold as canned, chilled, or fresh meat. Live lobsters are shipped by train as far as British Columbia, nearly four thousand miles away. Lobster is a very valuable catch, and in order to maintain the resources fishermen are careful to land only full-grown specimens.

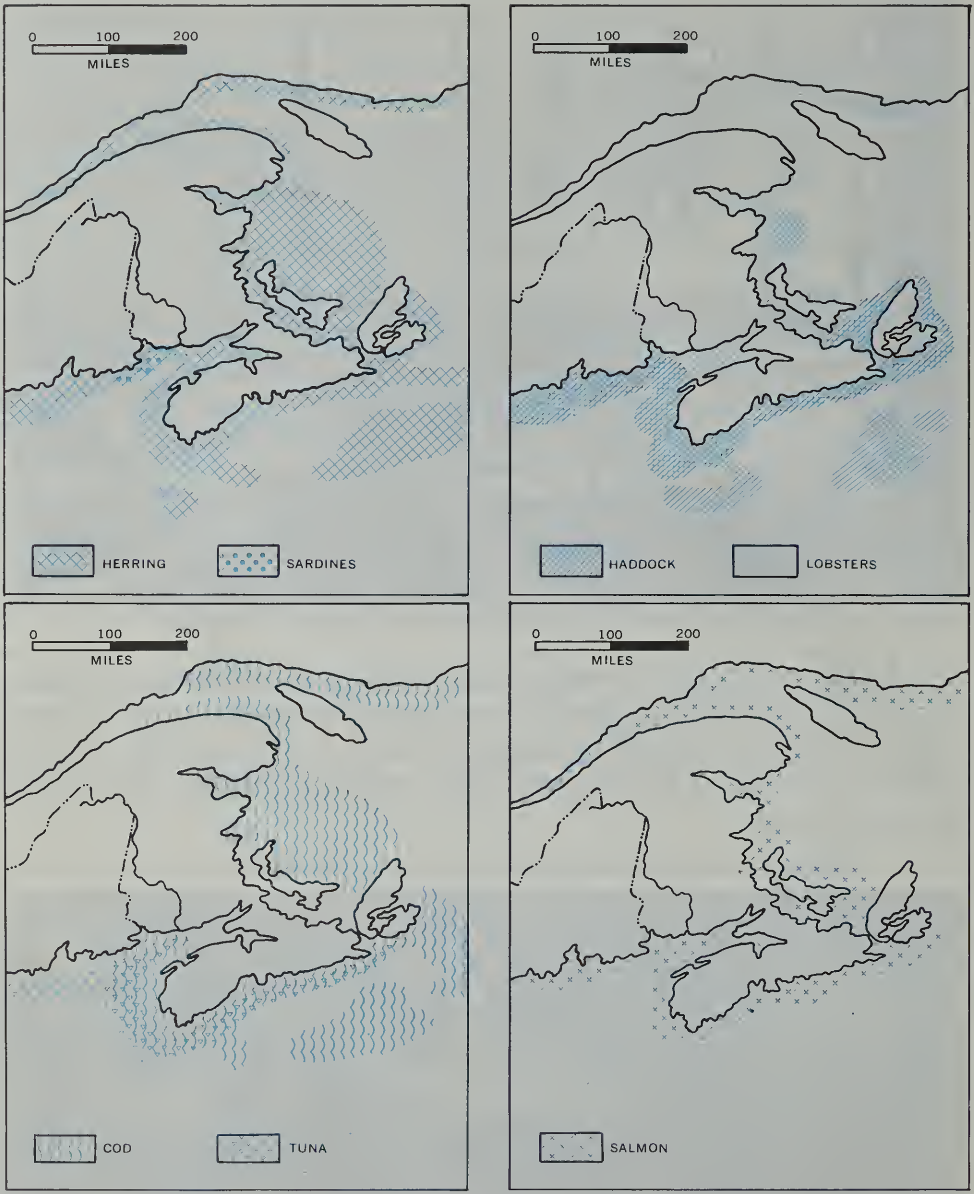
5–12A. An artist at work in Peggy's Cove (Nova Scotia Information Service).

5–12B. Vacationers on a Nova Scotia beach (Nova Scotia Information Service).

5–12C. Part of the fishing fleet at Lunenburg (Nova Scotia Information Service).

3. How is the ocean providing an income for Nova Scotians in Figure 5-12B? The highway map lists 133 sandy beaches on the coast of Nova Scotia. Refer back to the climate graph in Figure 5-10. Why is the summer weather appealing to tourists from urban centres of Eastern Canada and the United States?

5–12D. Boatbuilders at Weymouth (Nova Scotia Information Service).



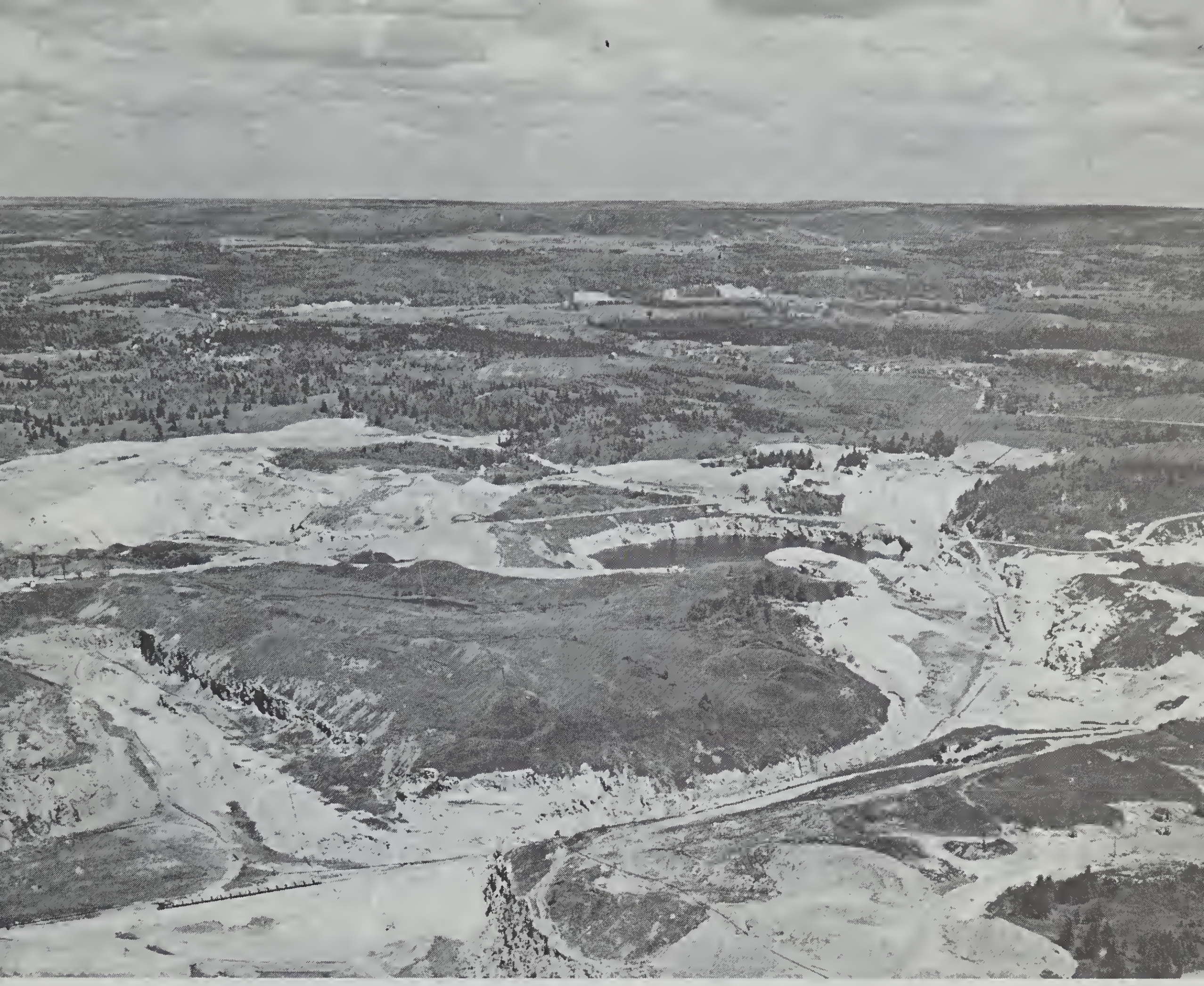
5–13. The fisheries of the Atlantic Provinces.

4. Figure 5-17 is a large-scale map of part of the Atlantic coast.

(a) How many coves and harbors are there on this map?

(b) How does Figure 5-8 classify the agricultural land of this area? What evidence does the map give that much of this land is not well suited to farming?

(c) Why did settlers in this area develop a livelihood based on the sea rather than on the land? Lunenburg was first settled by Germans in 1753 and has been noted as a fishing and shipbuilding centre ever since.



5–14. Gypsum mines in the Annapolis Valley (Nova Scotia Film Bureau).

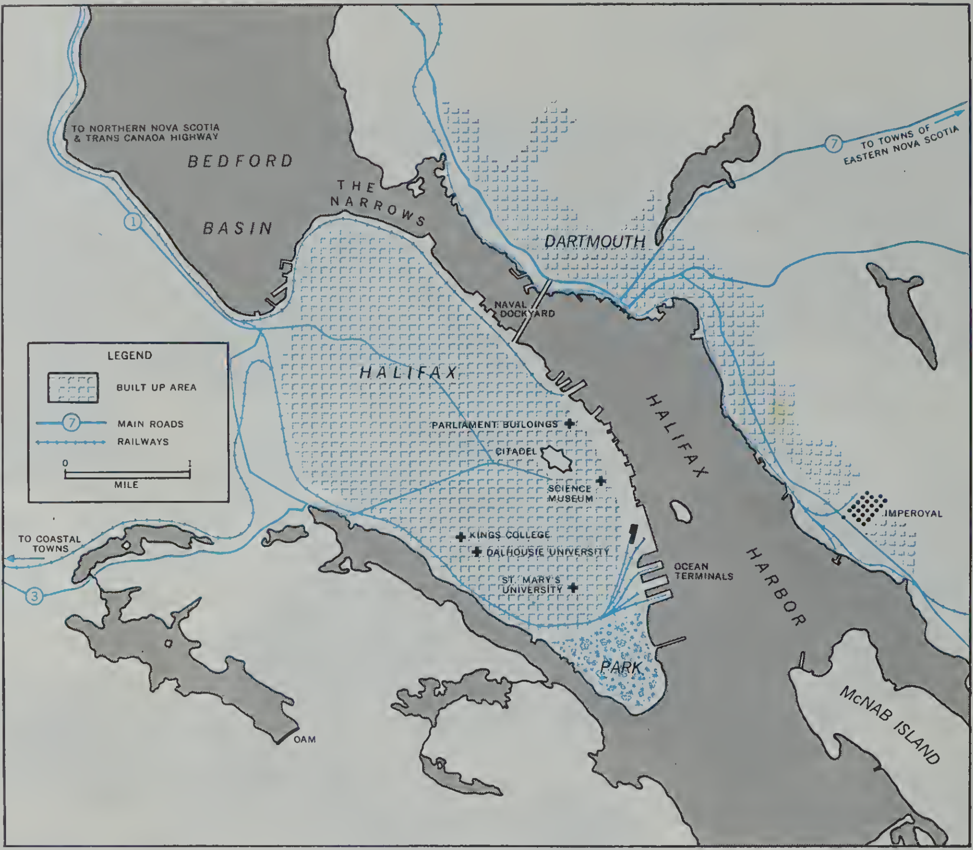
(d) Refer to Figure 5-13 and find out what fish are caught on the Atlantic coast of Nova Scotia.

5. Summarize the various ways in which the sea helps the people of Nova Scotia to earn a living.

Figure 5-14 shows quarries on the edge of the Annapolis Valley where nearly all Canada's gypsum is mined. It is used for making cement, plaster, and wallboard.

Why did Halifax become a great port and industrial city?

The harbors of the Atlantic coast, backed by the rough forested upland of the interior, provided sites for many small fishing towns and villages. Halifax, in a specially favored location, has developed into Canada's chief Atlantic port and Nova Scotia's largest city. Here is a description of how Halifax appeared to a soldier in 1917.

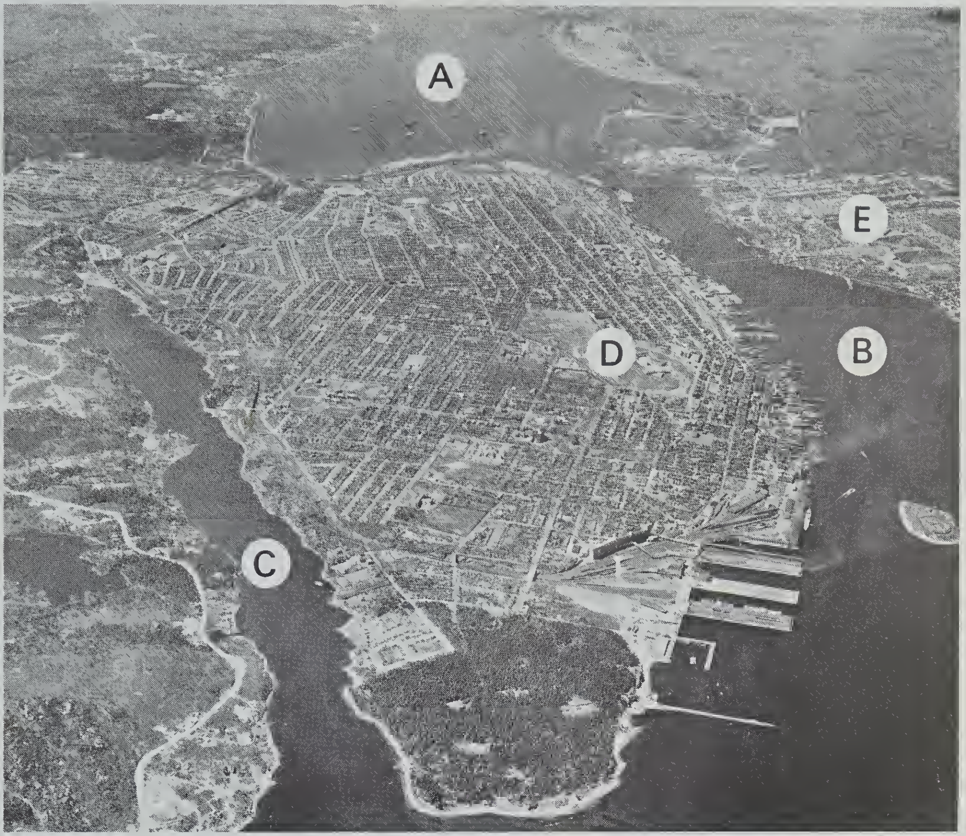


5–15. A large-scale map of Halifax.

He [slowly] began the climb toward Citadel Hill . . . he continued across the pavement, then upward along a wavering footpath through the unkempt grasses which rustled over the slope of the hill. . . . At the top of the hill he stopped on a narrow footpath that outlined the rim of the star-shaped moat which defended the half-hidden buildings of the central garrison . . .

He turned about and surveyed the town. . . . Though it was early December the snow had not yet fallen and the thin soil had frozen onto the rocks, the trees were bare and the grass was like straw, and the land itself had given up most of its color.

The details of Halifax were dim in the fading light but the contours were clear and he had forgotten how good they were. The Great Glacier had once packed, scraped, and riven this whole land; it had gouged out the harbor and left as a legacy three drumlins . . . the hill on which he stood and two islands in the harbor itself. Halifax covers the whole of an oval peninsula, and the Citadel is about in the centre of it. He could look south to the open Atlantic and see where the park at the end of the town thrust its nose directly into the outer harbor. At the park the water divides, spreading around the town on either side; to the west it is called the Northwest Arm, to the east it is called the Stream, and it is here that the docks and ocean terminals are built. The Stream . . . runs inland a distance of four miles from the park to a deep strait at the end of the town called



5–16. An aerial view of Halifax (Atlantic Air Survey).

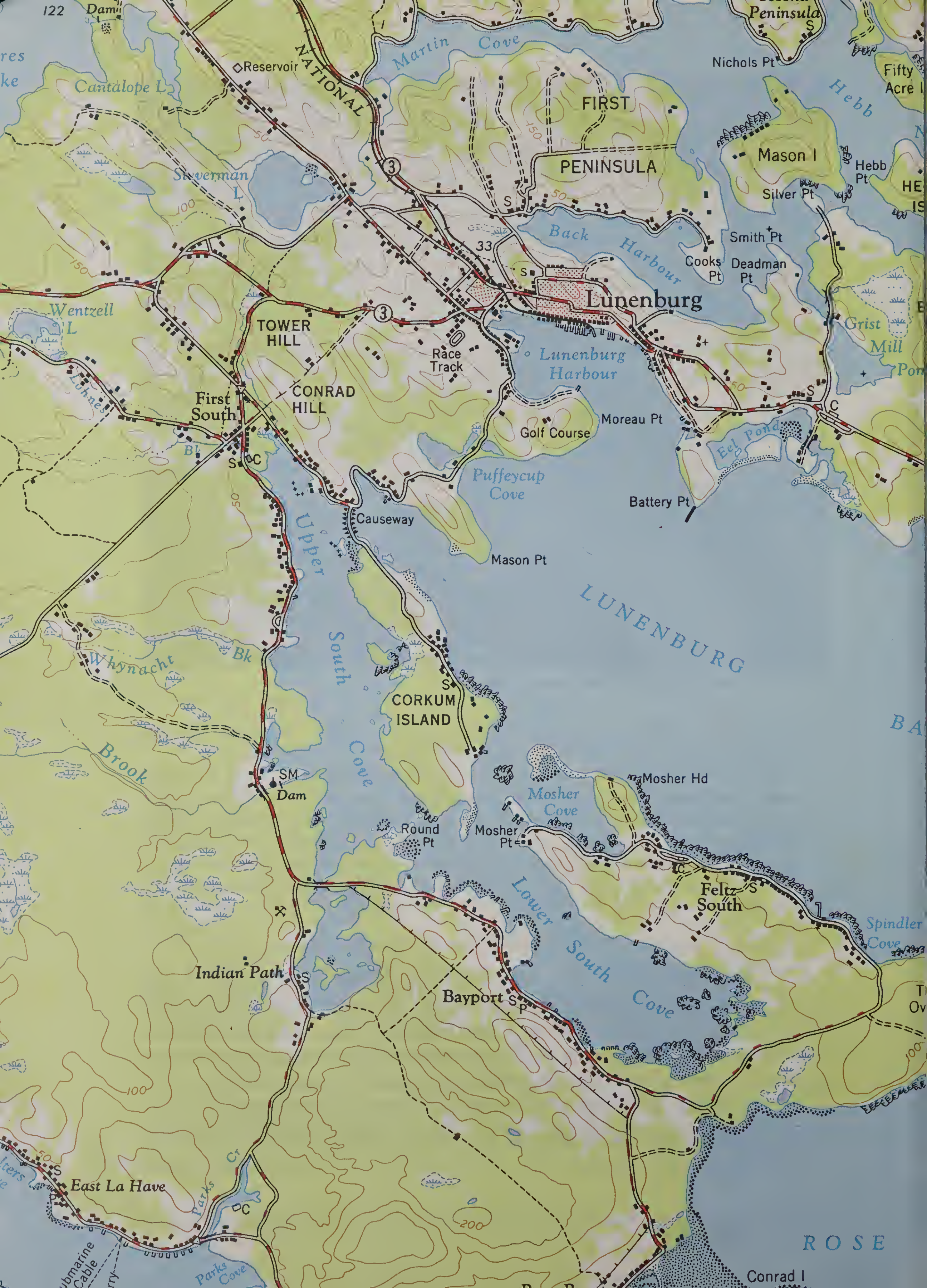
> the Narrows. This strait opens directly into Bedford Basin, a lake-like expanse which bulges round the back of the town to the north.
>
> . . . From here even a landsman could see why the harbor had for a century and a half been a link in the chain of British sea power. It is barricaded against the Atlantic groundswells by McNab's Island at the mouth of the outer harbor, and by the smaller bowl of George Island at the entrance to the Stream. It was defended now against enemy battle squadrons by forts set on rocky promontories running over the horizon into the sea. . . . This harbor is the reason for the town's existence.*

1. What does this writer think is the most important feature of the town? In Figures 5-15 and 5-16 find the park mentioned in the description. Which letters show the stream or Outer Harbor, Bedford Basin, Northwest Arm? Why is this a very good harbor for military purposes? In World War II, Atlantic convoys containing many ships assembled in Halifax harbor.

2. Find the ocean terminals. Passengers arriving in Canada by sea in winter often land at Halifax. Why do the Atlantic liners not dock at Montreal in winter?

---

*Quoted from *Barometer Rising*, by Hugh MacLennan, New York, Duell, Sloan and Pearce, Inc., 1941, pages 6-7.


122
Dam
Reservoir
NATIONAL
Martin Cove
Peninsula
S
Nichols Pt
Fifty
Acre I
Hebb
Cantalope L
FIRST
PENINSULA
Mason I
Hebb Pt
Silver Pt
Silverman L
50
100
150
3
S
Back Harbour
33
Smith Pt
Cooks Pt
Deadman Pt
S
Lunenburg
Wentzell L
3
TOWER HILL
Race Track
Lunenburg Harbour
Grist Mill Pond
CONRAD HILL
First South
Lohnes
Golf Course
Moreau Pt
S
C
Eel Pond
S
C
Bk
Puffeycup Cove
Battery Pt
Causeway
Upper South Cove
Mason Pt
LUNENBURG
Whynacht Bk
S
CORKUM ISLAND
Brook
SM
Dam
Mosher Hd
Mosher Cove
Round Pt
Mosher Pt
C
Feltz South
S
Spindler Cove
Lower South Cove
Indian Path
S
Bayport
S
P
100
200
S
East La Have
C
Parks Cr
Parks Cove
Submarine Cable
ROSE
Conrad I

3. Here is a list of things you would see on the Halifax waterfront. What goods are handled by the port? What industries are important?

grain elevators
cold storage warehouse
thermal electric plant
fishing fleet
oil storage tanks
freight cars of gypsum
sugar refinery
dockyards

4. Name two ways in which the glaciers of the Ice Age affected the land on which Halifax is built. Why are the three drumlins an advantage to Halifax?

5. Halifax is an important terminus of land routes. Count the number of roads and railways shown in Figure 5-15. Calculate the length of the journey to Montreal. How does this help to explain why Halifax has not grown as much as the cities of Southern Ontario and Quebec?

6. What other functions does Halifax perform according to the map?

The City of Dartmouth

Locate Dartmouth opposite Halifax in Figure 5-15. This is one of the largest cities in Nova Scotia although it is often considered part of Greater Halifax. A Swedish company has recently established a large automobile assembly plant at Dartmouth which employs several hundred people. This is an example of how Nova Scotia today is attracting new industries. The provincial government assists companies to become established. Many industries have developed in this way in the last few years. As a result, the growing towns and cities are like busy workshops where more and more skilled people can earn a comfortable living.

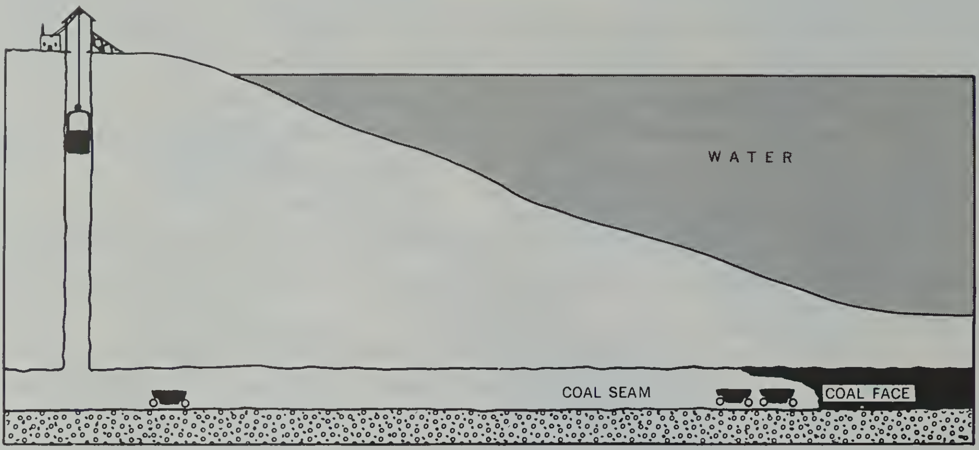
Cape Breton Island

Since 1955, it has been possible for trains and cars to cross the Strait of Canso by a low causeway and thus to reach Cape Breton Island. Many tourists visit this part of Canada, which is noted for its fine coastal scenery, its mountains and lakes. Why has the Canso causeway helped the tourist industry? Those who live on Cape Breton Island also benefit from this direct land communication with the mainland of Nova Scotia. Find out from Figure 5-8 where most of the people live. Figures 5-18 to 5-21 show where most of these people work.

Coal mining — a difficult and dangerous occupation

Figure 5-19 shows a colliery near Glace Bay. How do you know this is a shaft-type mine? The men in this colliery actually work deep down beneath

5–17 (Opposite). A topographic map of Lunenburg and surrounding district on the scale of 1:50,000, Sheet Lunenburg 21A/8 West Half, in the National Topographic Series, (Department of Mines and Technical Surveys, Ottawa).



5–18. Simplified diagram of submarine coal mine in Cape Breton Island.

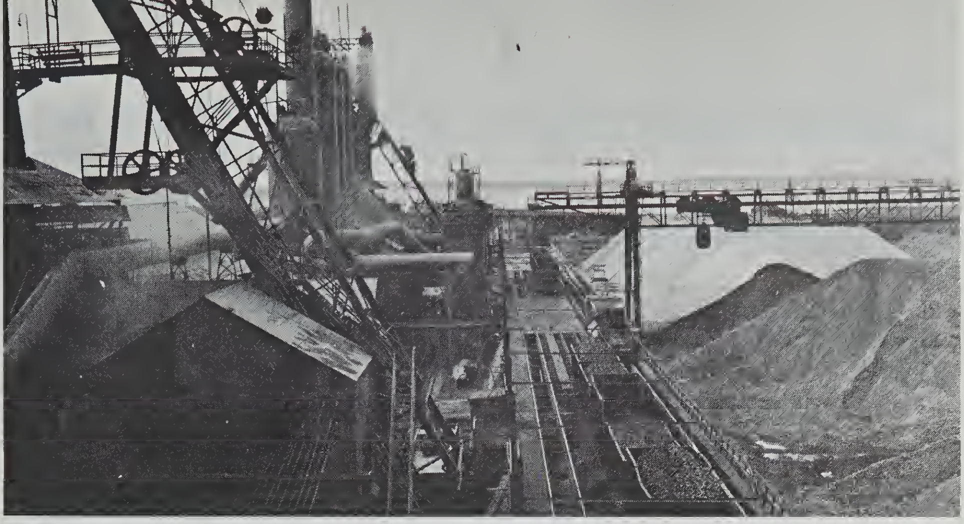
the sea. The diagram in Figure 5-18 shows how the Cape Breton mines are built. Miners must travel two or three miles to the coal face and coal must be transported this distance back. Water seeps into the mines and must be pumped out. A ventilation system must be installed to supply the men with fresh air. How do these conditions affect the cost of production?

In 1969, Nova Scotia produced little more than half as much coal as in 1957. The industrial cities of Southern Ontario and Quebec buy American coal. Why cannot Nova Scotia coal compete in this market?

In many trains, ships, and homes, coal has been replaced by oil. Nova Scotia still sells some coal for these purposes, but a great deal is used to produce electricity. Prince Edward Island uses Cape Breton coal in this way.

Why does Prince Edward Island need to do this?

5–19. A colliery by the sea—near Glace Bay (Sydney Steel Corporation).



5–20. Raw materials assembled beside the blast furnaces at Sydney (Sydney Steel Corporation).

Making Iron and Steel at Sydney

1. Figure 5-20 shows the blast furnaces at Sydney. On the right are three stockpiles of raw materials. What are these raw materials?

2. How is the coal brought to the furnaces? Where does it come from?

3. Iron ore comes from Labrador and Newfoundland. How is it brought to Sydney?

4. Limestone is also brought from Newfoundland by boat. Since only coal is locally available, why is Sydney a good site for this industry?

5. Quantities of electricity are required for steel making. How does Sydney make its electricity?

6. Figure 5-21 shows men at work making steel. Ingots, such as those being made in the photograph, and rails are the chief products at Sydney. These are shipped out to Quebec and Ontario to be made into anything from nails to battleships. At Trenton, railway rolling stock is made from Sydney steel. Local coal and iron ore provided the raw materials for the establishment of an iron and steel industry in this area.

5–21. Filling moulds with molten steel. Each mould holds 7 tons (Sydney Steel Corporation).

The rest of Cape Breton Island is very thinly populated. Refer back to Figure 5-8. Figure 5-22 shows part of Cape Breton Island. What reasons does this picture suggest for the lack of farming. What does Figure 5-8 show about soils in this area? Haying and dairying are practised on small patches of lowland.

The road in this picture is part of the famous Cabot Trail which follows the coast of Cape Breton Island National Park. How does this differ from the National Park on the coast of Prince Edward Island?

Why has Cape Breton Island an important tourist industry?

People and Places in Nova Scotia

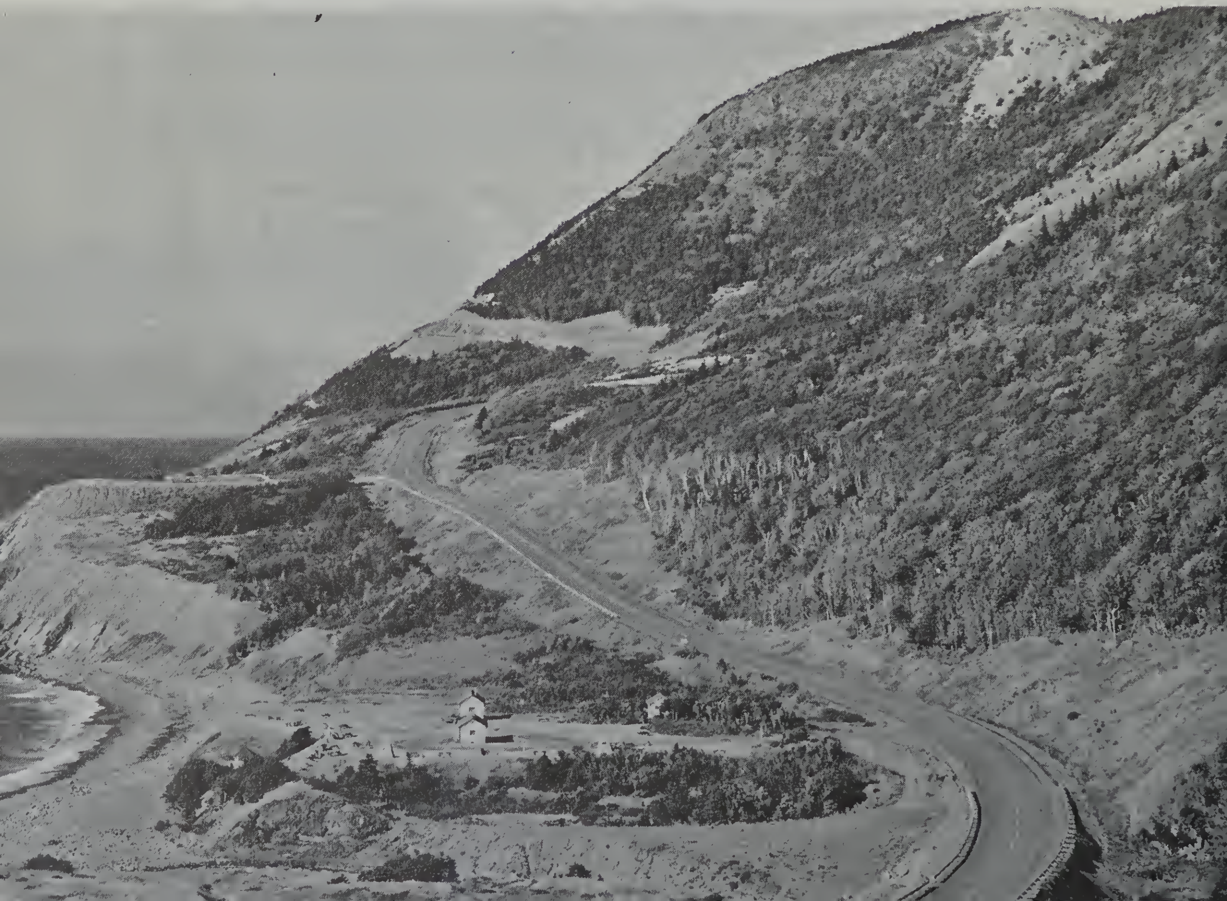
1. How do we know that *French* explorers and settlers were the first white settlers in Nova Scotia?

2. What does "Nova Scotia" mean? This province has its own tartans, and in some parts Gaelic is still spoken.

3. Many *loyalists* came to Nova Scotia after the American colonies became independent of England. What special contribution did they make to farming? Many other settlers came direct from *England* and *Ireland*.

4. Where did the original settlers of Lunenburg come from?

5–22. Part of Cape Breton Island (Nova Scotia Information Service).



5. Look back to Figure 5-8 which shows the largest settlements in Nova Scotia. Select the appropriate town to complete each of the following statements.

(a) Visitors arriving by car enter Nova Scotia at_______________.

(b) ____________________is the manufacturing, distributing, and transportation centre for the rich farmland area around Minas Basin.

(c) Visitors who arrive by ferry from Maine, U.S.A., dock at ____________________which is an important fishing centre.

(d) ____________________is the leading oil-refining centre of Canada's Atlantic coast. This large city also has varied industries, including steel products and aircraft repair.

(e) ____________________and____________________are industrial centres in a group of towns that include the steelworks of Trenton.

6. How have the people of Nova Scotia made the most of their long coastline?

7. What products of Nova Scotia are you most likely to see in your home area?

NEW BRUNSWICK — LAND OF WOOD AND WATER

Figure 5-23 is a picture showing how on May 18th, 1783, twenty sailing vessels brought nearly three thousand passengers to a patch of wilderness where the city of Saint John now stands. Others followed, and within a few years twelve thousand people had arrived. They were *loyalists,* refugees from the newly formed United States of America. Many had lost all their possessions when they left the Thirteen Colonies. The British Government provided them with provisions, tools, and clothing for a year. Many died of cold and exposure during the harsh winter, but others remained to establish the city of Saint John and to develop the lands and forests of the St. John Valley.

5–23. Loyalists landing at Saint John in 1783 (Harvey Studios).

5–24. The Loyalist House at Saint John (T. Clifford Hodgson).

Saint John — city of the Loyalist Trail

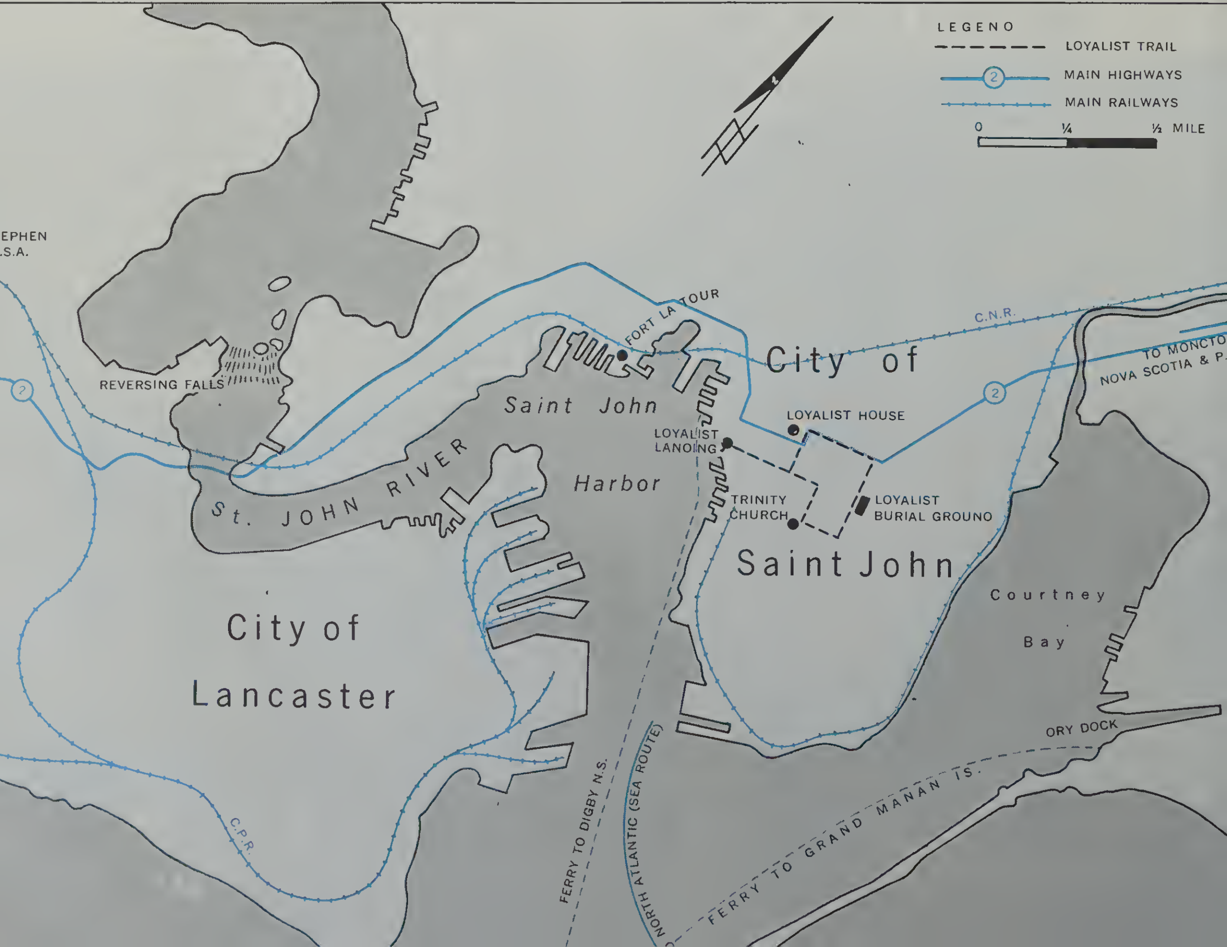
The people of Saint John remember their loyalist founders very clearly. They have preserved some of the landmarks of the past, and many visitors follow the "Loyalist trail" around the city. Figure 5-25 shows the route. It starts at the landing place down by the harbor. Only a plaque marks the spot today. Warehouses, office buildings, and harbor facilities show that the loyalists founded a prosperous city.

A fine Georgian-type mansion shown in Figure 5-24 has been restored as a museum. Close by is the old loyalist cemetery. When it was established in 1783 it was on the edge of the tiny settlement, but today it is in the heart of the modern city. The oldest headstone is dated 1784.

Bostonians are particularly impressed by the Royal Coat of Arms in Trinity Church. This used to hang in the Council Chamber of the Colony of Massachusetts in Boston. Loyalists brought it to Saint John and placed it over the governor's pew in the church when it was built in 1791.

Other links with the past have not been forgotten. The Champlain monument reminds people that French explorers and settlers had been in the area before the loyalists arrived. The French Fort La Tour is being

5–25. A large-scale map of Saint John.



excavated at Portland Point. British troops and ships drove the French from this area into the interior. Some of the present French-speaking population are descended from these early settlers. Eighty-five per cent of the people of Edmundston are French-speaking, and it is possible that soon New Brunswick will become Canada's second province with a French-speaking majority.

Saint John today

1. How is Saint John harbor protected? Why is it busiest in winter? Shipbuilding and repairing are very important in Saint John. What evidence of this is seen in Figure 5-25?

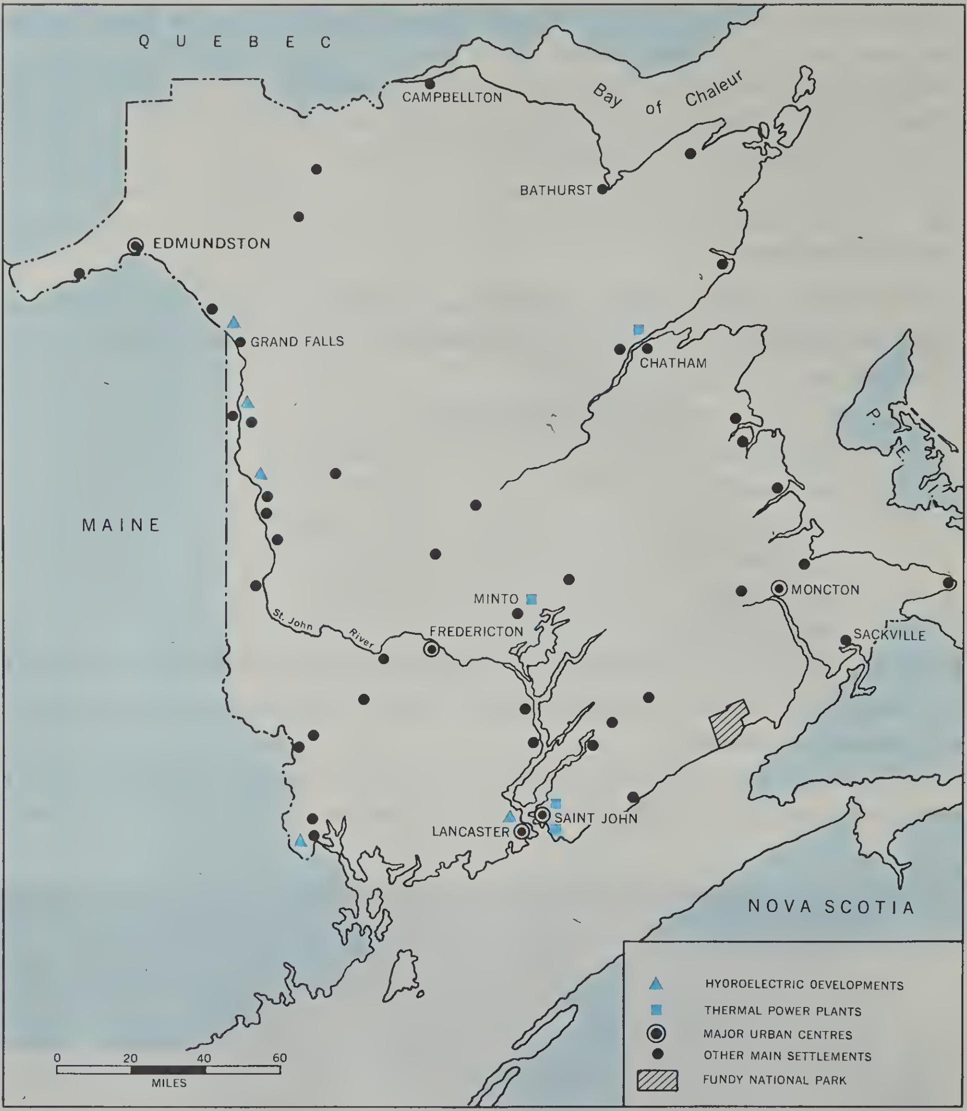
2. These are the chief goods handled:

Incoming	*Outgoing*
petroleum	grain
fuel oil	newsprint
gasoline	flour
raw sugar	lumber
motor vehicles	

How are grain and flour brought to Saint John for export? What industries are likely to be based on incoming goods? Saint John has one of the largest oil refineries in Canada.

3. Saint John is an important rail and road terminus. Which railway lines serve Saint John? Which line is extended beyond Saint John by ferry?

5–26. Moncton is an important railway centre (Canadian National Railways).

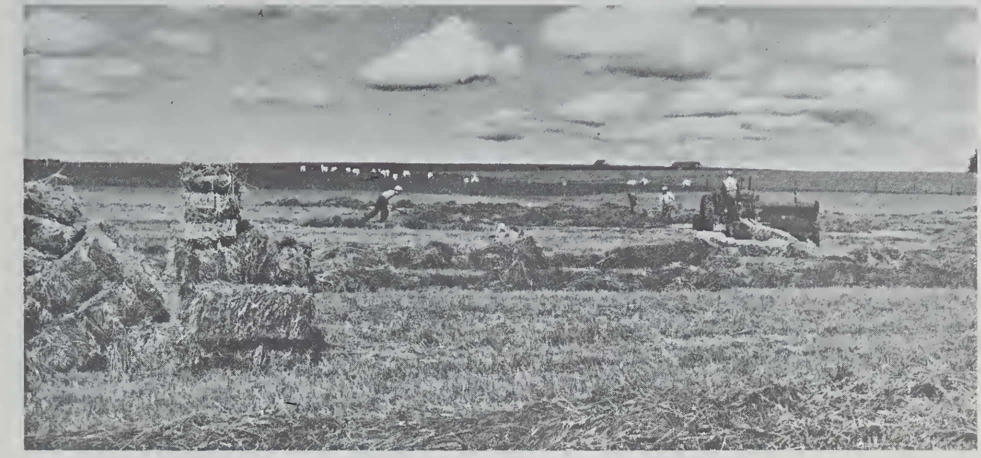


5–27. Inhabited places, power developments, and pulp mills of New Brunswick.

Other towns

Figure 5-26 shows the hump yard at Moncton, New Brunswick's second city. Note the position of this city as it is shown in Figure 5-27. Why is it an important transportation centre? It has many industries including oil refining, meat packing, and textiles.

The city shown in Figure 5-29 is Fredericton. Why was this a good choice for the capital of New Brunswick? The University of New Brunswick is located here, and is noted for its forestry school. Comment on the size of the St. John River and the nature of the distant landscape.

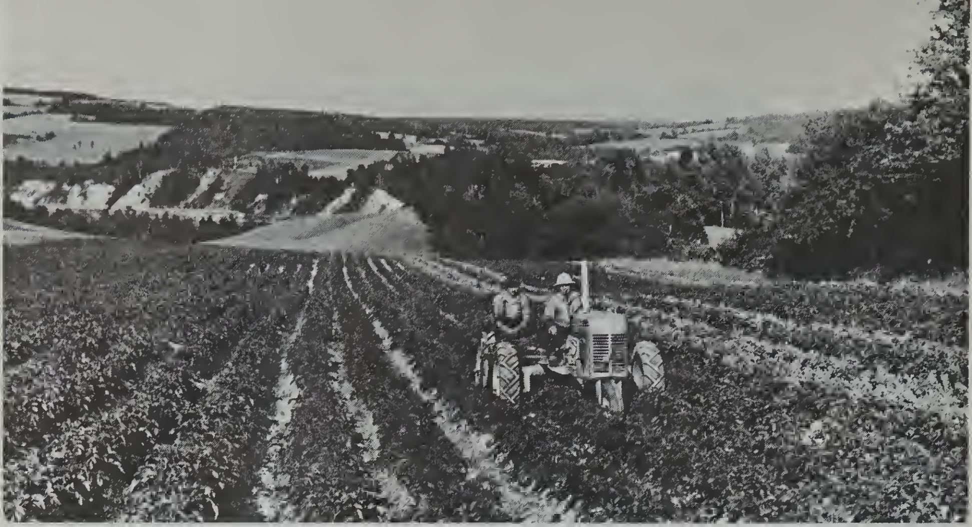


5–28. Farmers at work on the Tantramar Marshes (New Brunswick Travel Bureau).

Farming in New Brunswick

Figure 5-28 shows part of one of the largest areas of farmland in New Brunswick. The Tantramar Marshes have been built up of rich soil deposited by the Bay of Fundy tides. This area was one of the first to be settled in the Atlantic Provinces. Which area already studied does this remind you of? Describe the relief of the land in Figure 5-28. How is the land being used? Why are there few houses built on the marshes? Hay production and dairying are the chief forms of agriculture in all the valleys of Southern New Brunswick. Name the cities which consume most of the produce.

5–29. Fredericton in the lower St. John Valley (New Brunswick Travel Bureau).



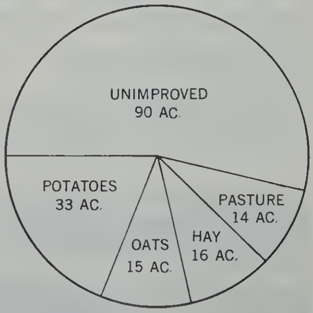
5–30. A potato farmer at work in the upper St. John Valley (New Brunswick Travel Bureau).

The Upper St. John Valley

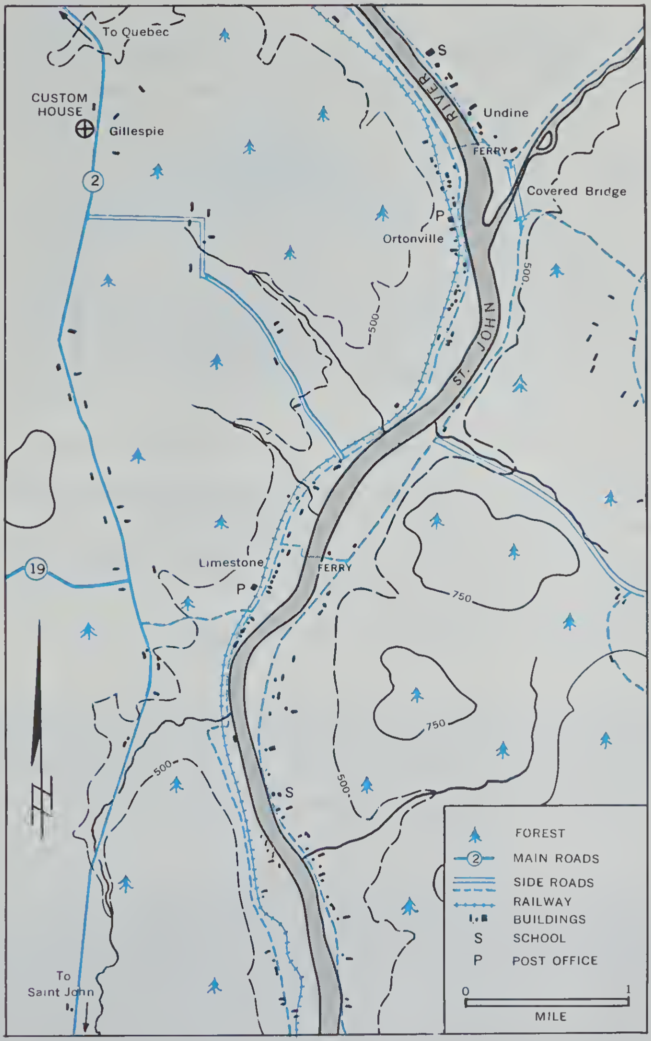
This is New Brunswick's second great farming region and the home of the potatoes for which this province is well known. Figure 5-30 shows a farmer working in his potato field near Grand Falls. Comment on the relief of the land in the distance. Figure 5-33 will tell you how high it is. What is the chief form of land use on this upland?

5–31. Land use on a farm in the upper St. John Valley.

Livestock and equipment kept:
1 tractor
10 cows
30 hens



5–32. Harvesting potatoes in the upper St. John Valley (New Brunswick Travel Bureau).

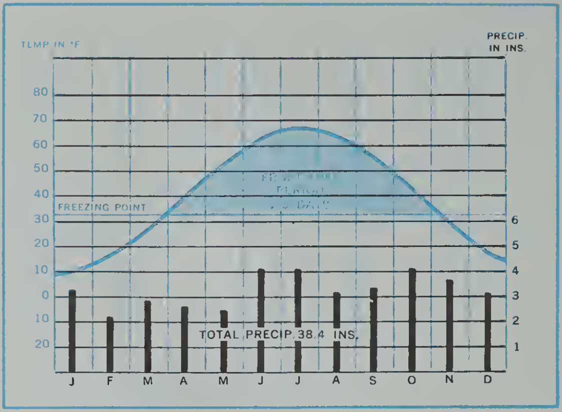


5–33. A large-scale map of part of the St. John Valley.

The St. John Valley forms a ribbon of settlement and farmland through the forested plateaus of New Brunswick. Figure 5-31 tells you how the land is used on one farm in this area. What proportion is cultivated? What fraction of the cultivated area is devoted to potatoes? Figure 5-32 shows a potato digger at work. What type of crops is the rest of the land used for? Why does the farmer need these? Which of his crops is a *cash crop?*

A closer look at the Upper St. John Valley

1. The map in Figure 5-33 shows the area where the potato farms are located. Using the 500-foot contour as a convenient limit to the valley, measure its approximate width. How does this compare with the Annapolis Valley? There are no tidal flats in this part of the St. John Valley, but *terraces,*

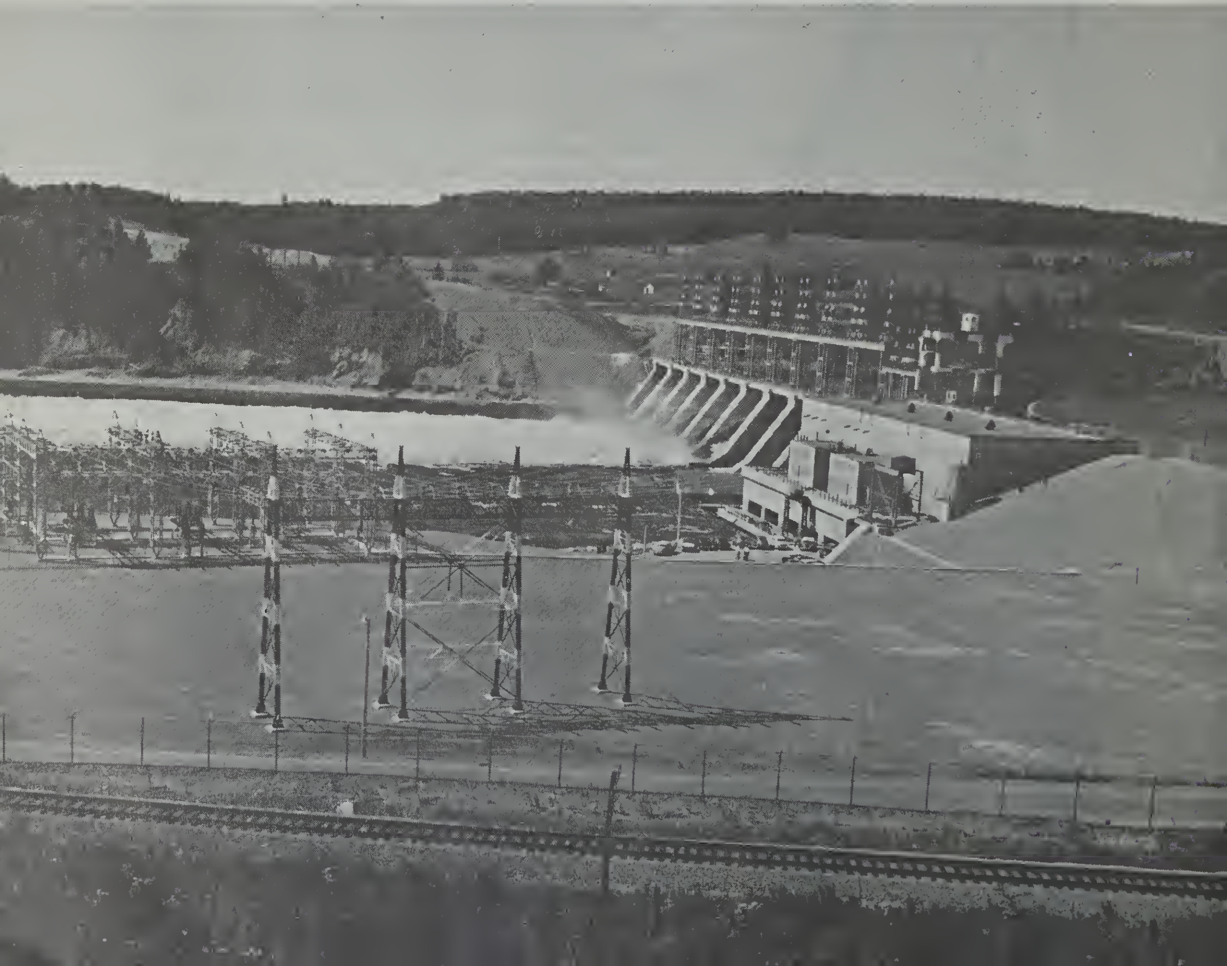


5–34. Climatic graph of Grand Falls in the upper St. John Valley.

composed of silt and gravel laid down by the river, form valuable farmland on either side of the valley floor. These terraces can be seen in Figure 5-35. How wide is the river? How can it be crossed? Why cannot this area support many large bridges? How is the tributary stream crossed? Covered bridges are one of the interesting features of New Brunswick.

2. What means of communication make use of the valley?

5–35. The hydro-electric plant at Beechwood (New Brunswick Travel Bureau).



3. Where are most of the villages located? Consider how people earn a living and suggest why they prefer these locations. Suggest a special reason for the existence of Gillespie. The United States border is about two miles to the west.

4. How does the map help to explain why the farm had more than half its land in unimproved forest?

5. Figure 5-34 is a climatic graph for this area. Compare the growing season with those for Hamilton and Kapuskasing. Consider the length of the growing season, winter and summer temperatures, amount and seasonal distribution of precipitation. What problems does the climate present to the farmers in the Upper St. John Valley? Why is irrigation seldom necessary?

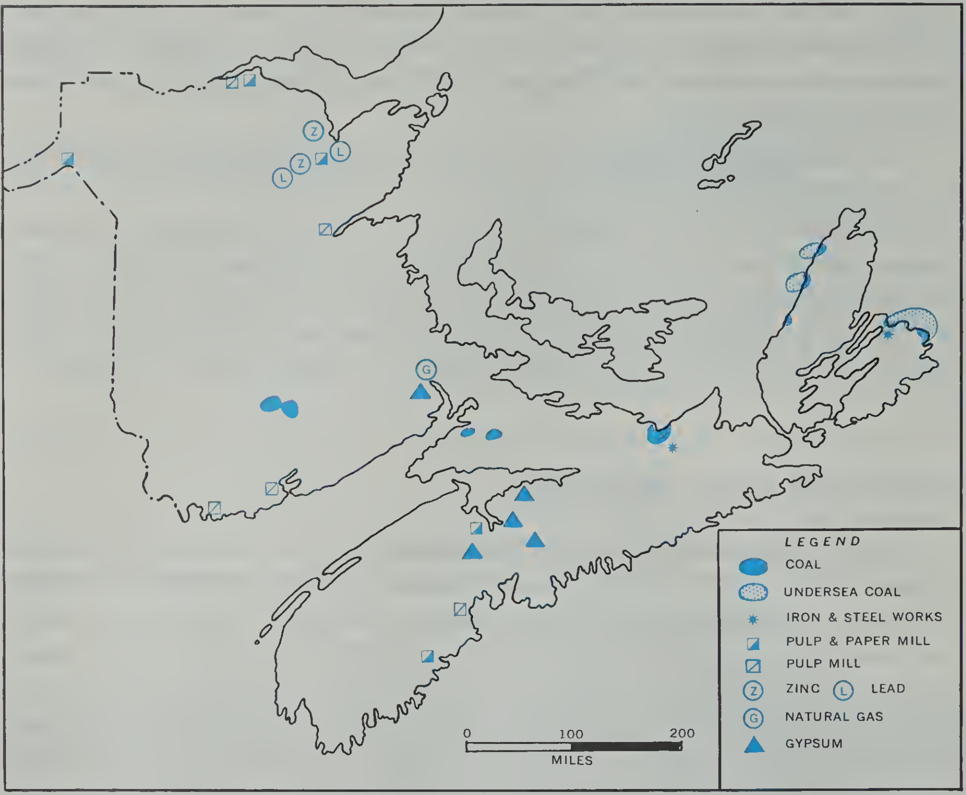
Power from the St. John River

How many hydro-electric power developments are shown on the St. John in Figure 5-27? This is New Brunswick's only developed source of hydro-electricity. (The plant shown in the extreme southwest of the map is a small one supplying a local cotton mill.) Figure 5-35 shows the plant at Beechwood. Describe the appearance of the St. John Valley at this point. Plans have been made for a further large hydro-electric development above Fredericton. This would flood 10,000 acres of land including 900 farms, 30 miles of highway, and 29 miles of railway. Many historic buildings and sites would be destroyed. How did Ontario deal with this problem? Why is the loss of farmlands especially important to New Brunswick? Only 30 per cent of the land is considered to be of high fertility, and the area to be flooded is some of the best land. In addition to providing power, the project would improve Saint John Harbor and possibly promote irrigation on the river. Flood damage would be reduced, and improved recreational facilities could be developed. How did Ontario develop the St. Lawrence Seaway as a recreation area? About half of New Brunswick's power is thermal. Why is there a thermal plant at Minto? Why can thermal power be easily made in Saint John?

Minerals in New Brunswick

Use Figure 5-36 to find out how to match these minerals with the correct places — lead-zinc-copper-silver; coal; gypsum; natural gas and oil.

1. Moncton uses this fuel from its local field.
2. Plasters, wallboard, and cement are produced where this mineral is mined, south of Moncton.
3. Open pit mines at Minto provide this fuel.
4. The Bathurst area produces these metallic ores.



5–36. Mineral resources, and certain industries of the Maritime Provinces.

Mineral wealth is not one of New Brunswick's greatest resources, but good supplies of fuel and building materials for local use are available, and in the past decade there has been considerable development of metals.

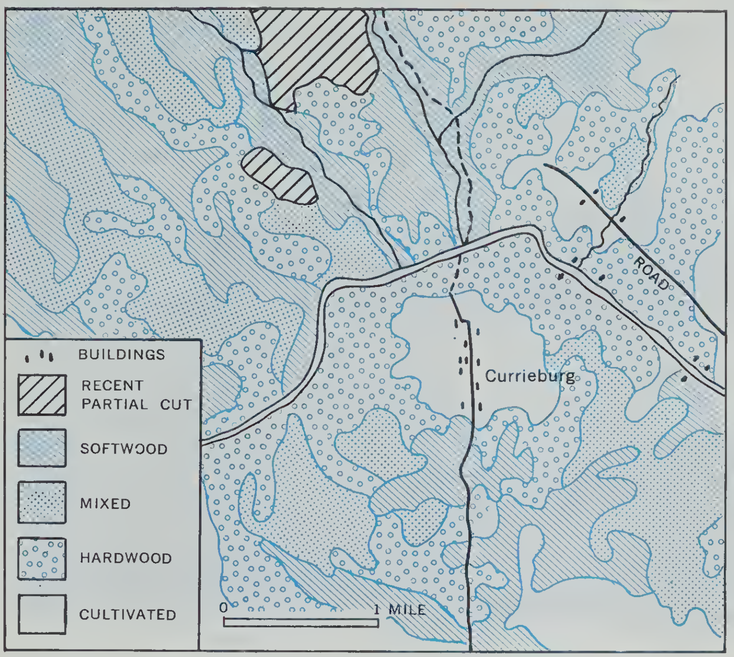
Timber — New Brunswick's greatest resource

About three quarters of New Brunswick is clothed with productive forest. Shortly after the arrival of the loyalist settlers, a great demand for timber in Britain led to the development of a flourishing square timber industry.* This was the time of the Napoleonic wars, and timber was urgently needed for shipbuilding. European sources were controlled by Napoleon, and timber from the Thirteen Colonies was no longer available. The pine forests of New Brunswick were a wonderful source of masts for the ships. Shipbuilding became an important industry, and shipping lumber occupied additional people.

Growing industrial cities and ever increasing railways needed more and more lumber. When the pine forests were exhausted, spruce filled the orders, and the forests and seaports of New Brunswick rang with the sound of axes and carpenters' hammers. The ships of New Brunswick sailed to all parts of the world and the timber men grew prosperous.

---

*Square timber consisted of logs squared off or hewn by axes. The logs were floated down the rivers on rafts or in cribs loosely held together within a framework of other logs.



5–37. A large-scale map of a forest area of central New Brunswick.

The boom period passed when iron ships replaced wooden ones, but forest industries remain. Sawmills, pulp mills, and paper mills are widespread throughout the province. About half the manufactured production of New Brunswick is from the forests, the bulk of this being in the form of pulp and paper.

The New Brunswick forests today

Here is a description of the New Brunswick forest:

> I have seen those steely rivers winding through the sombre green of the spruce and the outcroppings of rock . . . inland, even four miles inland in that country, there is no sense of ocean at all, but only of this primeval forest of spruce. . . . The rivers run through it teeming with trout and salmon, and moose, bear, deer, and all the northern animals large and small are at home in the tangle of trees.

And here the author describes a canoe trip through the forest:

> There were no lights on the shore, no cabins or houses, there was nothing but the forest, the sky, the moon, the river, the canoe, and the logs floating down to the sea.*

Figure 5-37 is a large-scale map of part of the forest of central New Brunswick.

1. What proportion of the land is forested?
2. Name two types of forest.
3. Where are the softwood trees?

---

*Quoted from *The Watch That Ends the Night,* by Hugh MacLennan, Toronto, The Macmillan Co. of Canada Ltd., 1961, pages 173, 188.

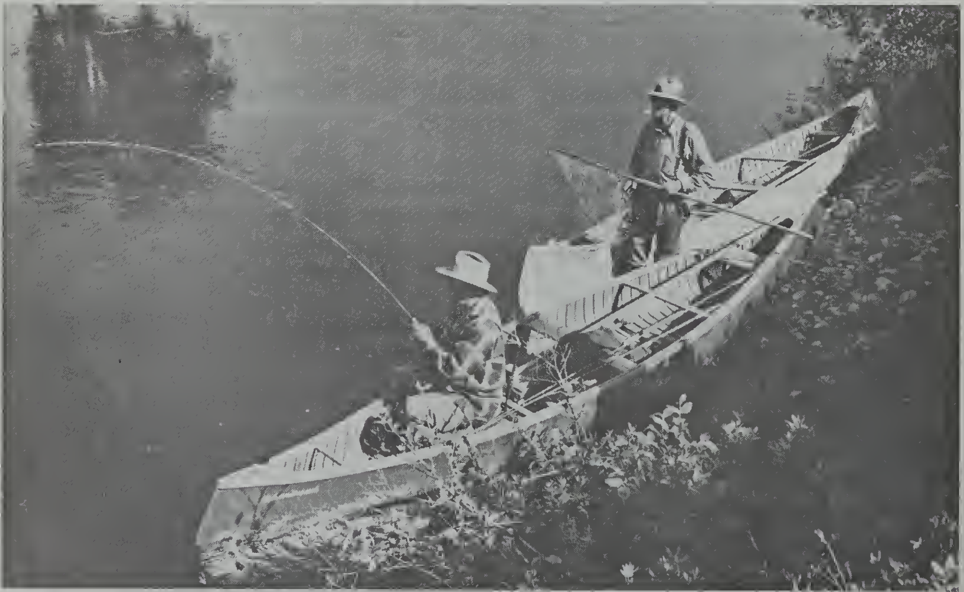
5–38. Shipping lumber from Chatham (New Brunswick Travel Bureau).

4. What proportion of this area has been cut over recently? How do you know that an attempt is being made by the lumbermen to conserve this forest?

5. What do you notice about the location of the agricultural land? Suggest reasons why these parts have been cleared.

6. Comment on the size of the village of Currieburg.

5–39. Trout angling in a New Brunswick stream (New Brunswick Travel Bureau).



7. Look at the descriptions and the map. How do you know that this is a very lonely area with few settlements and communications?

8. What are the people in Figure 5-39 doing?

The forests of New Brunswick provide a valuable recreation area and refuge for wild life. They restrict water run off and check soil erosion. Lack of roads and railways is the greatest problem in developing New Brunswick's forests. Rivers are the chief means of moving logs to the mills. Give another reason why the rivers are very important in the forest industries. Refer to Figure 5-36 and locate the largest pulp and paper centres. Figure 5-38 shows one of the mills at Chatham. What product is being exported? How is it being carried to market? The biggest markets are Britain, the United States, and the West Indies.

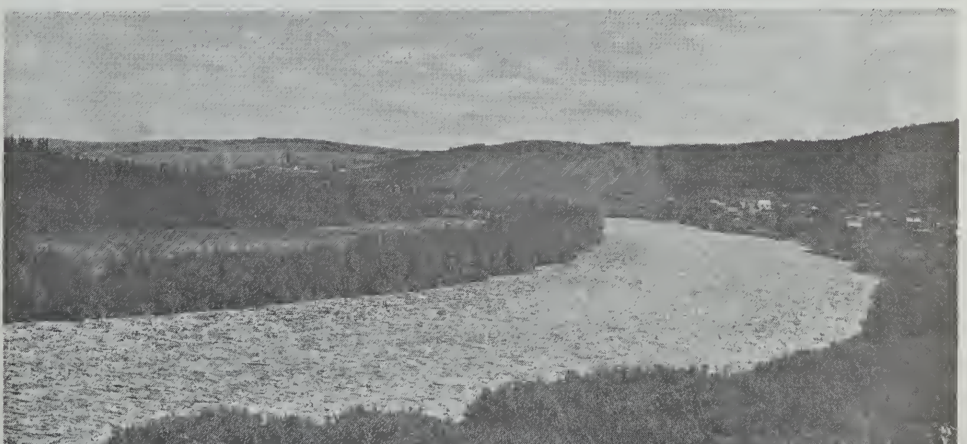
A picture summary

Look at Figure 5-40 and make a list of the facts about forestry in New Brunswick which are illustrated here. Mention the type of land, type of forest, settlement, communications, and forest development.

Wealth from water

Why is water so important to the people of New Brunswick? How does it help the farmers of the St. John Valley, and the industrialists of Edmundston

5–40. Wood and water—New Brunswick's great resources (New Brunswick Travel Bureau).



and Saint John? Why was it important to the nineteenth-century craftsmen, and why does it help the resort owners of today?

About two thirds of New Brunswick's boundaries are on salt water. How did this influence the industrial development of the past? Fishing is an important industry on these coasts. Refer to Figure 5-13 and find out which fish are caught on the New Brunswick shores. What fish is caught only in New Brunswick? Sardines from the cannery at Black's Harbor are sold in South Africa, the United States, the West Indies, and South America. Atlantic salmon are eagerly sought by sport fishermen. Pollution of the waters by sewage and industrial waste has caused these fish to decline. Efforts are being made to restore pure water and to stock the rivers with young salmon from hatcheries.

The Bay of Fundy is noted for its high tides. The incoming tide rushes up the narrow channel of the bay, and the water may rise as much as 60 feet. At Saint John, water rushing up the river reverses the normal flow of the waterfall on the St. John. These Reversing Falls are a well known tourist attraction. Visitors also watch the tidal bore — the great wave formed by the incoming tide. This is an advertised attraction of Moncton fifty miles from the main part of the Bay of Fundy. In Figure 5-27 locate the National Park which has been set aside in this area. One day scientists may discover ways of using the changing tides for power.

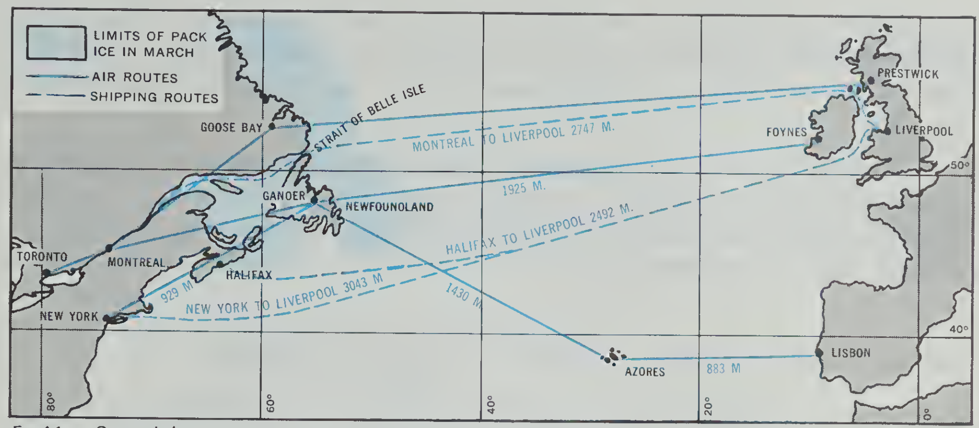
A review of New Brunswick

1. On a highway map or atlas trace the routes between New Brunswick and the heavily populated areas of Southern Ontario and Quebec. How far is Saint John from Montreal? from Toronto? Why is travel between New Brunswick and Quebec difficult? Refer back to your study of Gaspé in answering this question. How is New Brunswick connected with Nova Scotia? with Prince Edward Island? How is it isolated on the western boundary? How far must a ship travel from Saint John before it is on the main Atlantic trade routes? Its rather isolated position has made it difficult for New Brunswick to compete with other parts of Canada in the development of its natural resources.

2. In 1968, New Brunswick had a population of 624,000. This is about a quarter as many people as live in Metropolitan Toronto. Why has New Brunswick not been able to attract more people?

3. What are the chief ways people earn a living in New Brunswick? What forms of wealth are available for further development in the future?

4. List some of the ways in which the people of New Brunswick are trying to conserve their natural and cultural resources and make the best use of them.



5–41. Canada's eastern gateway.

NEWFOUNDLAND AND LABRADOR — CANADA'S EASTERN GATEWAY

Many Canadians visit the province of Newfoundland and Labrador, but many more have passed close by its shores in an ocean liner or flown over its rocky lakestrewn surface.

The gateway to a busy ocean highway

Figure 5-41 shows Newfoundland's position as Canada's eastern outpost in a key position on one of the busiest trade routes of the world. How far is it from St. John's, Newfoundland, to Toronto, Vancouver, and Liverpool? All shipping between Europe and the Great Lakes - St. Lawrence lowlands must pass close to the shores of Newfoundland. In summer ships use the northern route, and pass through the narrow Strait of Belle Isle. In spring, fall, and winter they must pass south of the Island. Why is this necessary? The northern route is still impassable long after the St. Lawrence is open for shipping in spring. Why do ships prefer the northern route when possible?

5–42. Abstract of Ship's Log—Liverpool to Montreal.

Date	Lat. N	Long. W	Dist.	Wind	Force	Remarks
June 23	50.36	58.36	490	W	6	Rough sea. Some icebergs. 5.30 a.m. passed Belle Isle.
June 24	To	Father	Point	W	4	Foggy. Proceeded slowly. 9.30 a.m. arrived Father Point. Took on pilot.

Beaufort wind scale: 0—Calm; 1—Light air; 2—Light breeze; 4—Moderate breeze; 5—Fresh breeze; 6—Strong breeze; 7—Moderate gale; 8—Fresh gale; 9—Strong gale; 10—Whole gale; 11—Storm; 12—Hurricane.

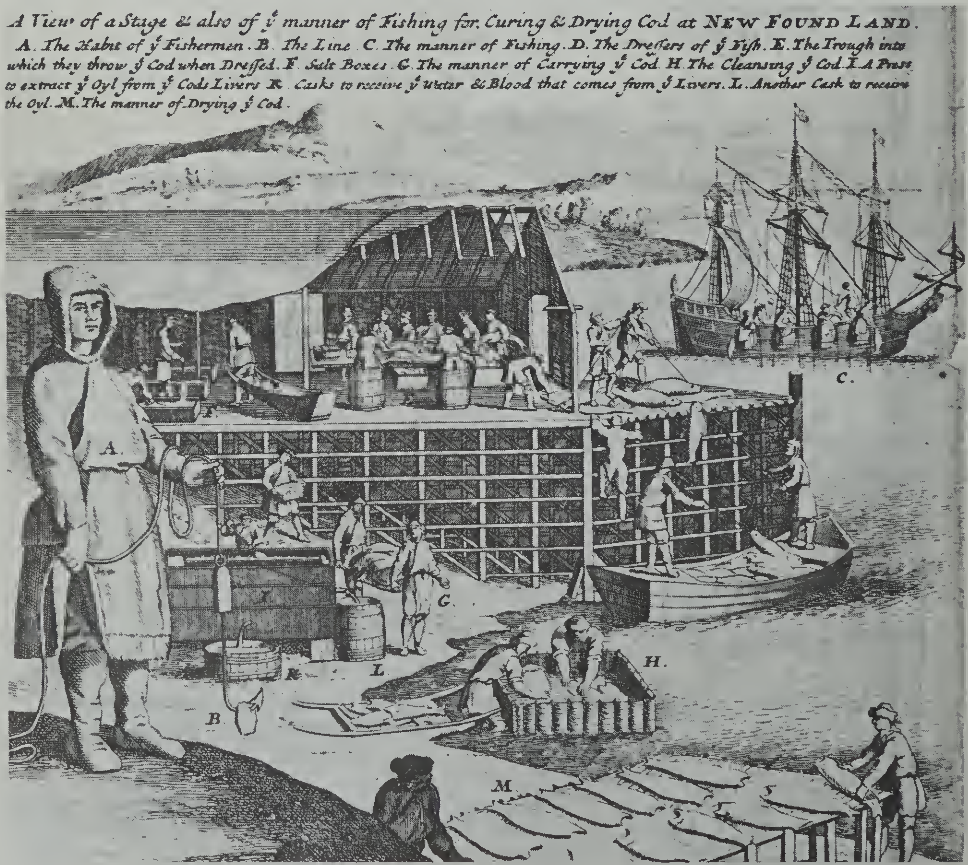
Figure 5-42 is an abstract from the ship's log of a passenger liner which passed through the straits in June. What was the weather like at this season? Why was this one of the most difficult and dangerous parts of the voyage?

With the increasing importance of air travel, Newfoundland has maintained its position as Canada's eastern gateway. From mid-Atlantic, westward flights are in communication with Gander airport and some flights still call here en route to and from Europe.

Britain's oldest colony — Canada's youngest province

John Cabot is usually credited with the discovery of Newfoundland on his voyage of 1497, and by 1583 it had officially become an English colony. During the years that followed, Newfoundland became prized for its fisheries, and for its valuable position astride the route between the developing colonies of North America and the European parent nations. Fishing rights were bitterly disputed and settlement was not encouraged until the nineteenth

5–43. An old print of the codfishing industry (Public Archives of Canada).


A View of a Stage & also of yᵉ manner of Fishing for, Curing & Drying Cod at NEW FOUND LAND.
A. The Habit of yᵉ Fishermen. B. The Line. C. The manner of Fishing. D. The Dressers of yᵉ Fish. E. The Trough into which they throw yᵉ Cod when Dressed. F. Salt Boxes. G. The manner of Carrying yᵉ Cod. H. The Cleansing yᵉ Cod. I. A Press to extract yᵉ Oyl from yᵉ Cods Livers. K. Casks to receive yᵉ Water & Blood that comes from yᵉ Livers. L. Another Cask to receive the Oyl. M. The manner of Drying yᵉ Cod.
A.
C.
G.
H.
I
K
L.
B.
M.

century. In 1949, after years of economic distress, Newfoundland became Canada's tenth province.

Fishing — Newfoundland's oldest industry

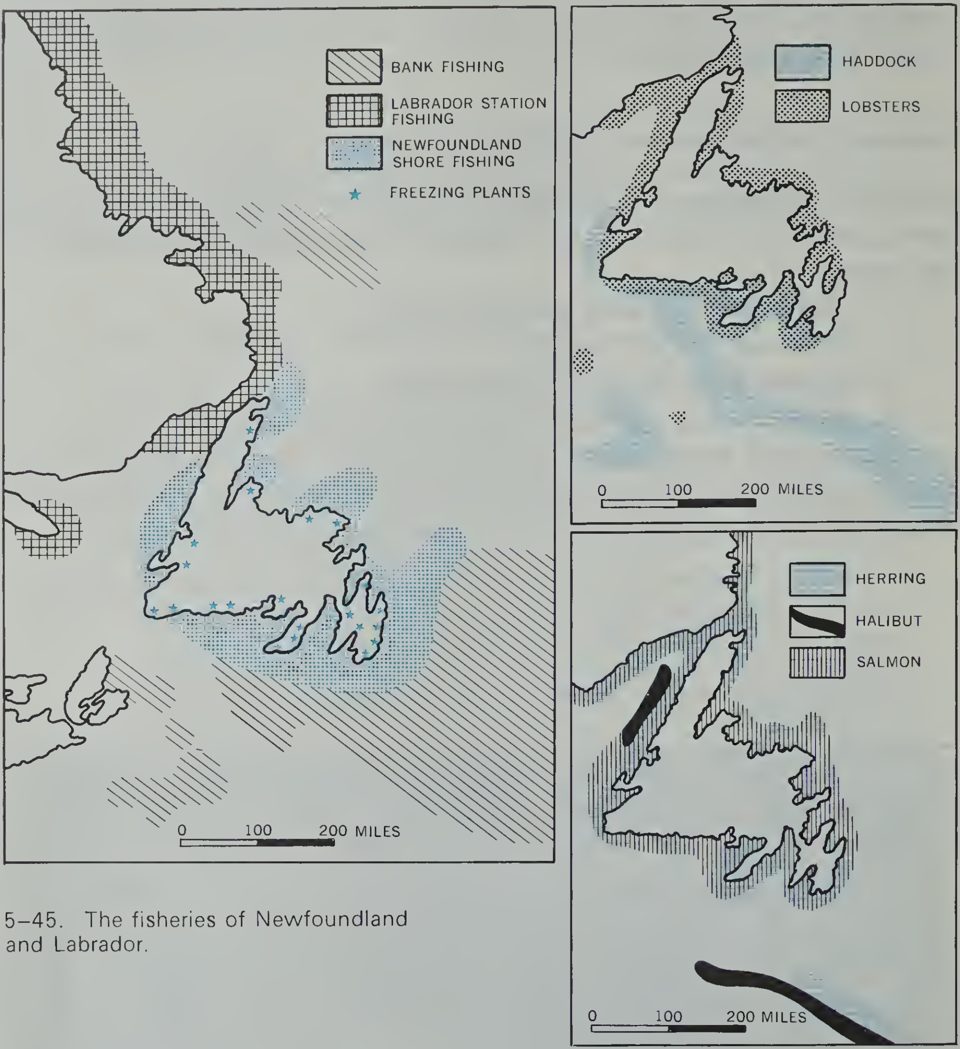
For centuries the waters of the North Atlantic have been prized as valuable fishing grounds. Figure 5-43 is an ancient print showing the early days of cod fishing.

1. Why is the fisherman warmly dressed?
2. How were the cod caught?
3. In what form was the fish marketed?
4. What product was obtained in addition to the flesh?

Figure 5-44 shows fishermen at work today. Each day from June till October they set out in their small boats and fish within six miles of the shore. This is called *inshore* fishing. Here is an account of a fishing trip.

> When I got to Pouch Cove, John and Emma Nosworthy . . . arranged a dawn fishing trip with cousin Billie Nosworthy. For me she hauled out Harry's fishing suit and boots, his wool cap, hand line, and shoulder bag.

5–44. Landing the catch in a Newfoundland fishing village (Newfoundland Tourist Development Office).



5–45. The fisheries of Newfoundland and Labrador.

Up long before the sun next day, I gobbled the breakfast Emma had left out . . . picked up my gear, and trotted across the street to Billie Nosworthy's.

Besides Billie, our crew included his brother Joe and a young boy, Matt. We went slapping out to sea as the rising sun flushed scattered clouds.

At a certain spot Billie cut the engine and dropped anchor. He threaded my hook with squid to show me how. We heaved over our lines. Bottom was in thirty fathoms. We pulled the hooks just off it.

Soon Billie, Joe, and Matt were yanking fish aboard every few moments . . .

The fishing seemed good to me, but the men said it was slow. Yet the storage bins steadily filled with flopping cod.*

1. What time of day did the fishermen leave?
2. What clothing and equipment did they use?

---

*Quoted from "Newfoundland, Canada's New Province," by Andrew H. Brown, *National Geographic Magazine,* June, 1949, (Vol. XCV, No. 6), pages 779-782.

3. How many people were in the boat?
4. What was their chief catch?

The man in the picture is landing cod onto the platform at the right. After cleaning, it will be taken by truck to a processing plant in the nearest town. In recent years there has been great development of freezing plants. How many are shown in Figure 5-45? Many cod are still dried on the wooden platforms (like those shown in Figure 4-46) and shipped to the West Indies. Some are washed in electric washers and dried indoors. Chemicals are used as preservatives in modern plants. How did the fishermen in Figure 5-43 preserve their fish? Refer to Figure 5-45 and make a list of the types of fish produced by the inshore fisheries.

A Newfoundland folksong*

Let Me Fish Off Cape St. Mary's

Take me back to my Western boat,
Let me fish off Cape St. Mary's
Where the *hag-downs*[1] sail and the foghorns wail
With my friends the Browns and the Cleary's.
Let me fish off Cape St. Mary's.

Let me feel my dory lift
To the broad Atlantic *combers,*[2]
Where the tide rips swirl and the wild ducks whirl
Where old Neptune calls the numbers.
'Neath the broad Atlantic combers . . .

Let me sail up the Golden Bay
With my oilskins all a'streamins' . . .
From the thunder squall — when I hauled me trawl
And my old Cape Ann a gleamin'
With my oilskins all a'streamin' . . .

Let me view that rugged shore,
Where the beach is all a'glisten
With *caplin*[3] spawn where from dusk to dawn
To the undertow a'hissin . . .

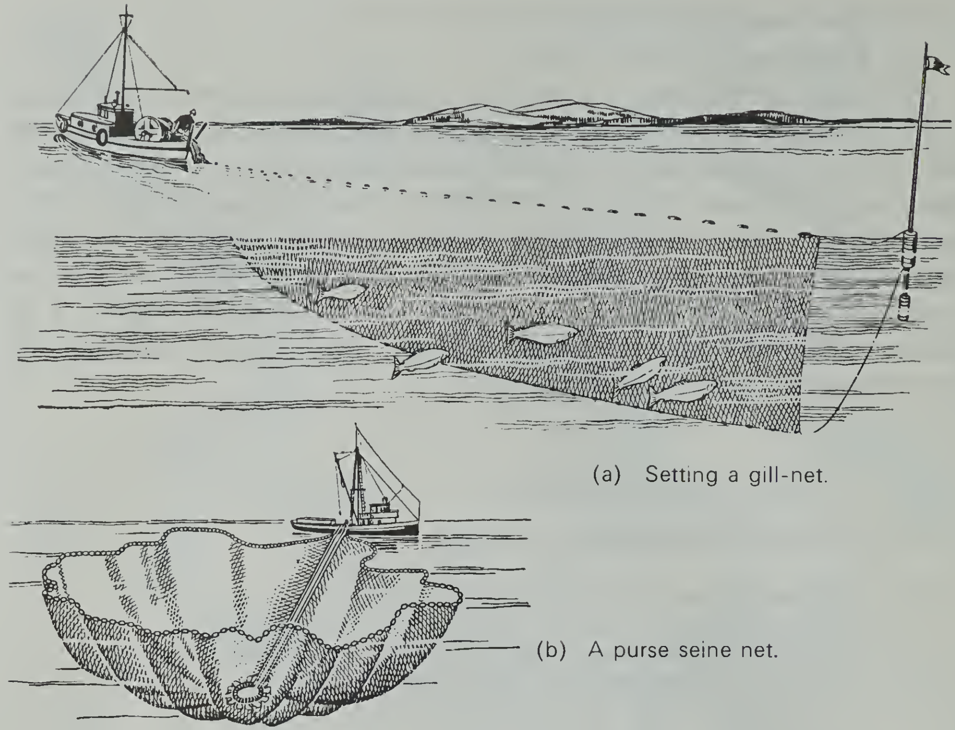
When I reach that last big *shoal*[4]
Where the ground swells break asunder,
Where the wild sands roll to the surges toll,
Let me be a man and take it
When my dory fails to make it.

Otto P. Kelland.

1. Local name for two seabirds, the Sooty Shearwater and the Greater Shearwater.
2. breakers
3. fish used for bait
4. sandbar

---

*From *Ballads and Sea Songs of Newfoundland,* words by Maude Roberts Simmonds, quoted from *Historic Newfoundland* by L. E. F. English, published by Newfoundland Department of Economic Development, St. John's.



(a) Setting a gill-net.

(b) A purse seine net.

5–46. Using nets to catch fish in the inshore fisheries.

1. What type of boat did the singer use?

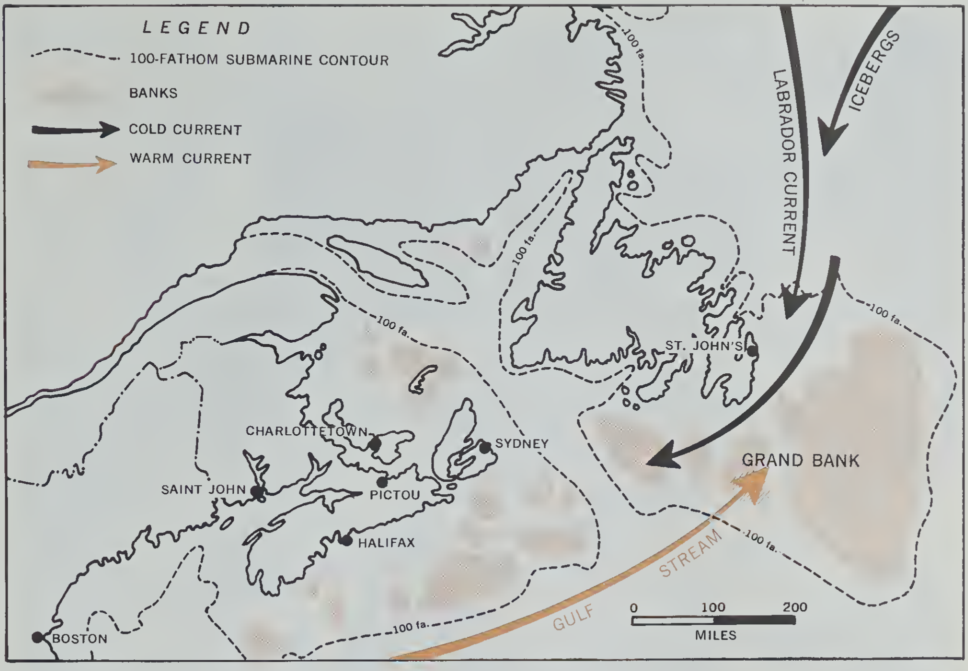
2. What type of fishing gear did he have? A trawl is a long line with as many as 500 baited short lines attached to it. Some inshore fishermen use nets to catch the fish. In a *gillnet* the fish become entangled in the meshes. A *purse seine* is more like a great bag with a drawstring closing. Figure 5-46 shows these types of nets.

3. How can you tell that the singer worked close to the shore?

4. What does he tell of the difficulties and dangers of inshore fishing?

Why are deep-sea fisheries important to Newfoundland and Labrador?

Off the coasts of Newfoundland and Labrador, the waters are only about 600 feet deep and there are many *banks*. These are even shallower areas which are much less than 600 feet deep. Figure 5-47 shows the banks of the Atlantic coast. Compare the size of the Grand Bank with the size of Newfoundland. Now compare its size with that of Lake Ontario. How deep is the water over the banks? (One fathom equals six feet.) Beyond the banks the sea bottom drops steeply to 12,000 feet and deeper. The banks are some of the best fishing grounds in the world.



5–47. The fishing grounds of the North Atlantic.

What two famous ocean currents meet off Newfoundland? These waters abound in tiny particles of animal and vegetable matter called plankton. This provides excellent fish food, and is one of the reasons for the abundance of fish. What else is brought to this area by the Labrador current?

Figure 5-48 shows a *dragger* at work on the Grand Banks. Compare this with the small boats shown in Figure 5-44. This vessel carries a crew of 18 and may be at sea for several weeks. Figure 5-49 shows men at work sorting haddock on the deck of one of these vessels. They will be cleaned and stored

5–48. A dragger at work on the Grand Banks.

5–49. Sorting the catch in a dragger (National Film Board).

in ice until the boat returns to port. Comment on the weather in Figure 5-48. Fog is common on the Grand Banks, on account of the cooling effect of the cold current on the warm air from over the warm current. Here is how two immigrants in the nineteenth century described the fog.

> The gloom spread around by the impenetrable fog was heightened by the dismal tone of the foghorn, warning us of the vicinity of some fishing boat, numbers of which were scattered over the banks . . . The captain had a great dread of the coast of Newfoundland, which being broken into deep bays divided from each other by rocky capes, is rendered exceedingly perilous; more especially as the powerful currents set towards this inhospitable shore.
>
> The fog was so penetrating as to soak with moisture the blankets in our state cabins . . . and so dense was it that sometimes we could not see the length of our small vessel.*

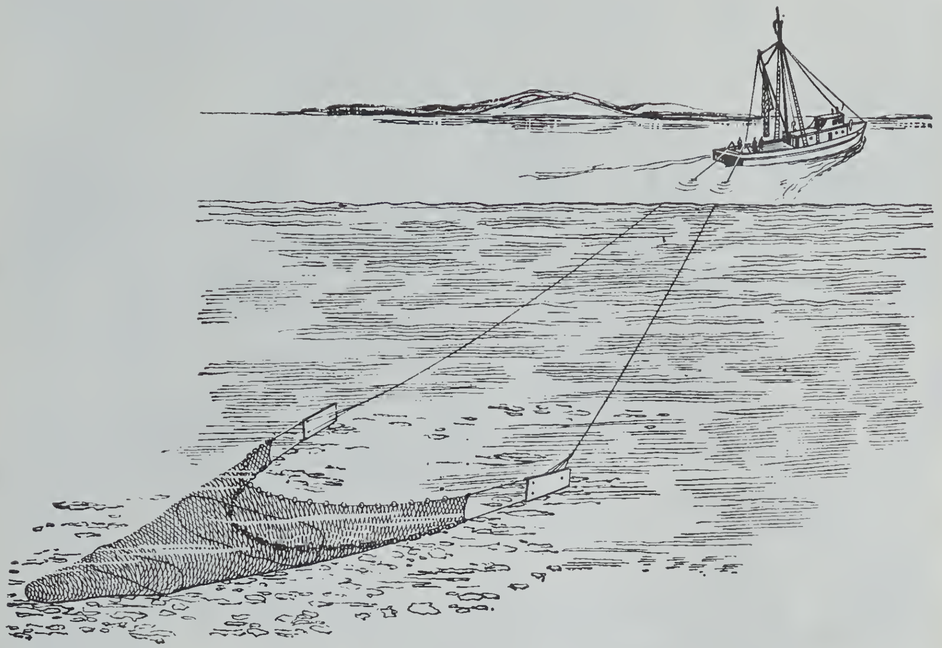
The deep-sea fishermen use lines and nets, and also drag a huge bag-shaped net along the ocean floor as shown in Figure 5-50. The vessels are often equipped with telephone, radio, sounders, and radar. Why do deep-sea vessels need these safety devices when working in this area?

The importance of the North Atlantic fisheries

Figure 5-51 shows how important the Atlantic fisheries are in the total Canadian production.

---

*As quoted from contemporary sources by E. C. Guillet in *The Great Migration,* Toronto, University of Toronto Press, 1963.



5–50. A dragger at work.

1. Which province has the greatest number of people engaged in fishing? This represents nearly one quarter of the Canadian total, and Newfoundland lands about one quarter of the total Canadian catch.

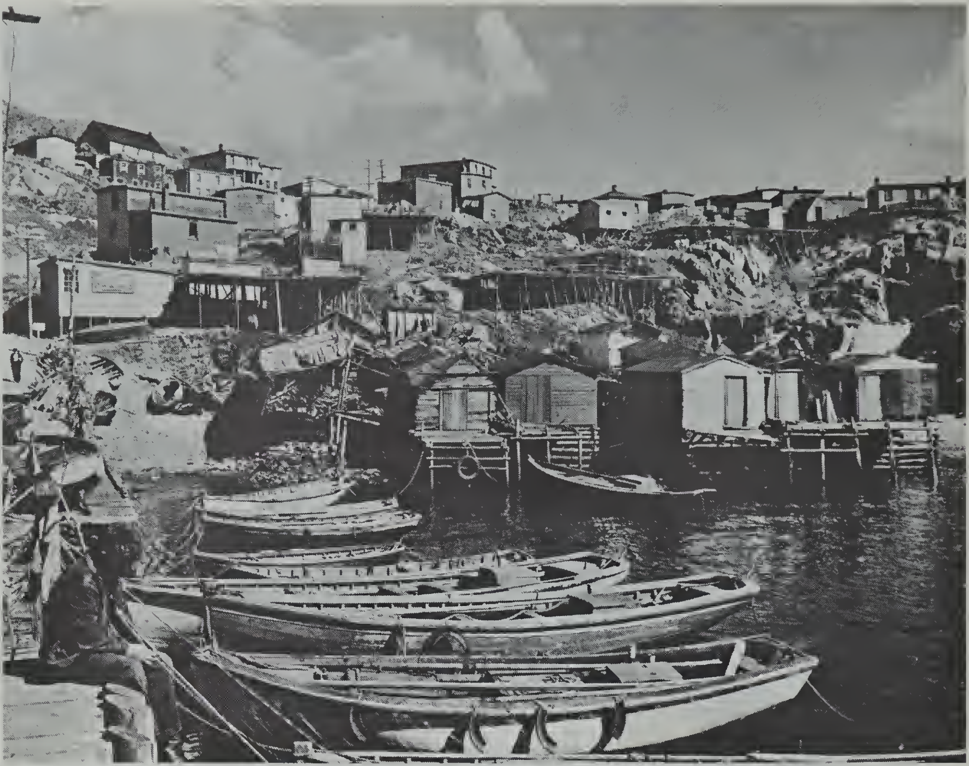
2. How does Newfoundland rank in *value* of its fishery products? Why can Nova Scotia, with fewer fishermen and a smaller catch, obtain a greater income from its fisheries? Compare the price of Newfoundland cod and Nova Scotia lobster.

3. Newfoundland and British Columbia produce nearly the same quantity of fish each year. Why is British Columbia's catch so much more valuable?

For centuries cod has been the chief basis of the Newfoundland fishing industry. Why is dependence on a single product for a living rather dangerous? The Newfoundland Government has encouraged fishermen to try for other

5–51. Newfoundland's contribution to Canada's fisheries.

Province	Persons employed in the primary fishing industry, 1965	Value of all products of the fisheries, 1965
		$'000
Newfoundland	21,701	52,849
Nova Scotia	14,049	91,626
New Brunswick	6,241	46,237
Quebec	4,664	12,881
British Columbia	13,000	89,872



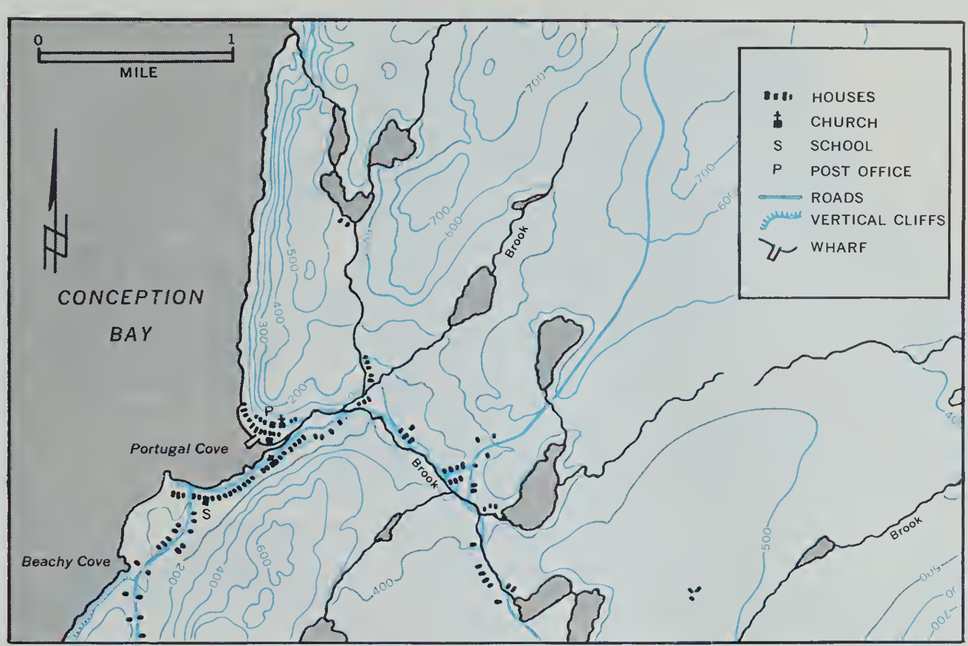
5–52. The fishing village of Portugal Cove, Newfoundland (Canadian National Railways).

catches. Refer to Figure 5-45 and list what other varieties are available. Sealing and whaling are also practised.

What are the characteristics of a Newfoundland outport?

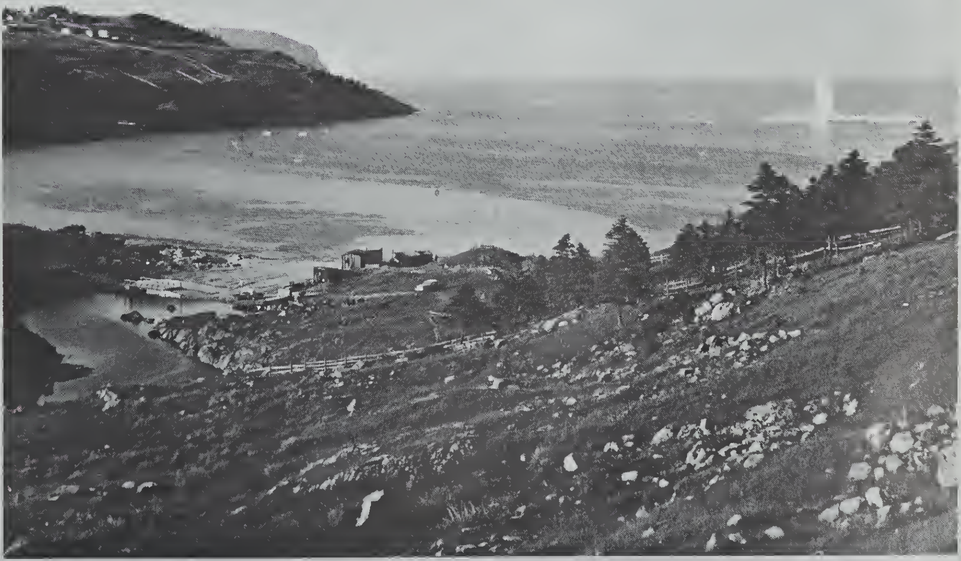
The photograph and map in Figures 5-52 and 5-53 together provide a good idea of what life in a Newfoundland *outport* or fishing village is like.

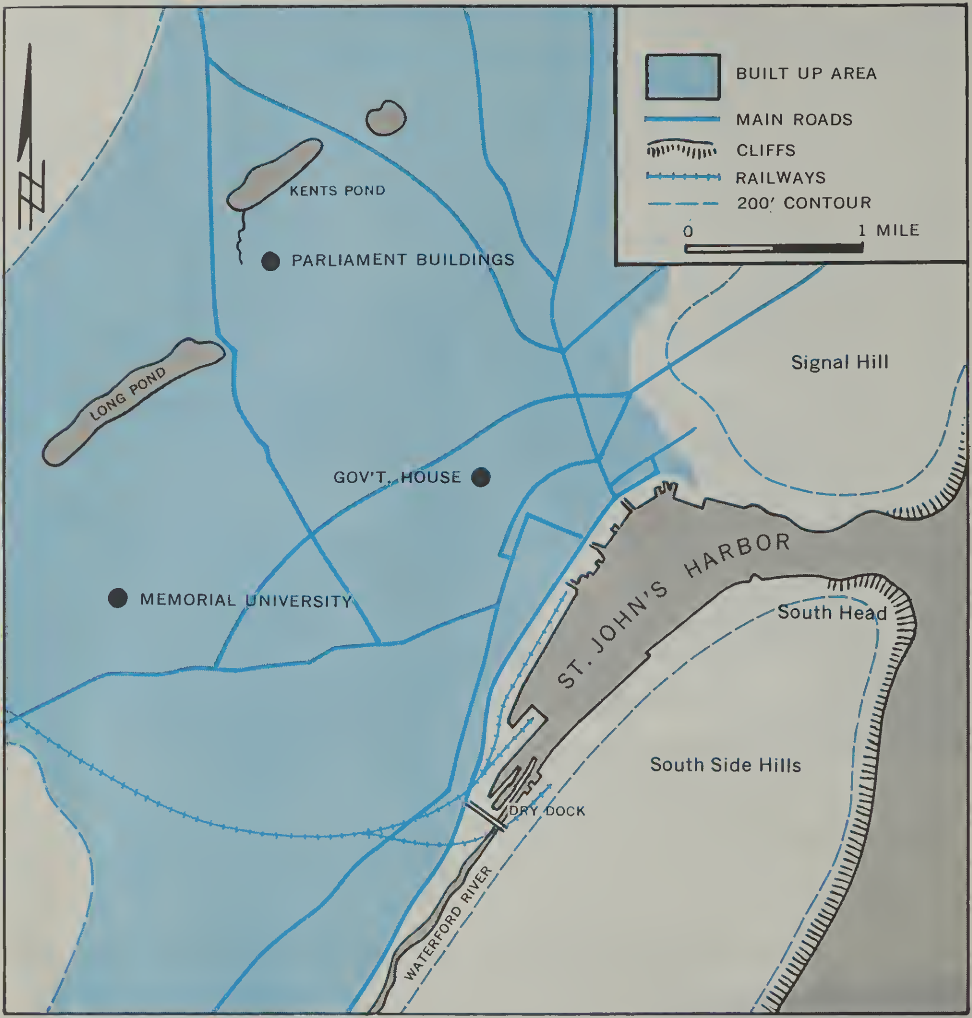
1. What is the coast like in this area? How high are the cliffs?
2. Why does the coast at this point provide a suitable site for a fishing village?
3. How high above sea level are most of the buildings? Give two reasons why the valley is of value to the people of Portugal Cove.
4. What type of boat is shown? How are these used?
5. What are the large platforms on the shore used for?
6. Figure 5-54 shows another fishing cove nearby. It is a clear calm day in April. What hazard makes ocean travel dangerous at this season? Describe the field in the foreground. Why do the people of these villages look to the sea rather than to the land for a living?
7. Counting four people to a house, estimate how many people live in Portugal Cove.



5–53. Map of Portugal Cove, Newfoundland.

5–54. The fishing cove of Torbay near St. John's (Newfoundland Tourist Development Office).



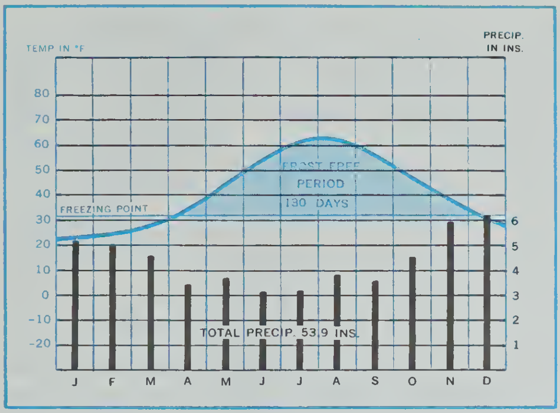


5–55. A large-scale map of St. John's.

St. John's is a major port

1. Large vessels such as the dragger shown in Figure 5-48 and ocean-going freighters and passenger vessels dock at larger ports such as St. John's. From Figure 5-55 estimate the size of St. John's harbor. Compare it with Portugal Cove. Why is this a safer anchorage? What is the coast like outside the harbor? How far is St. John's from European ports such as Liverpool, Southampton, or Hamburg?

2. St. John's (Figure 5-57) is an important port but does not handle Newfoundland's major exports of pulp and paper and iron ore. Comment on the landscape around St. John's. Why did the town grow up on the west rather than the east side of the harbor?

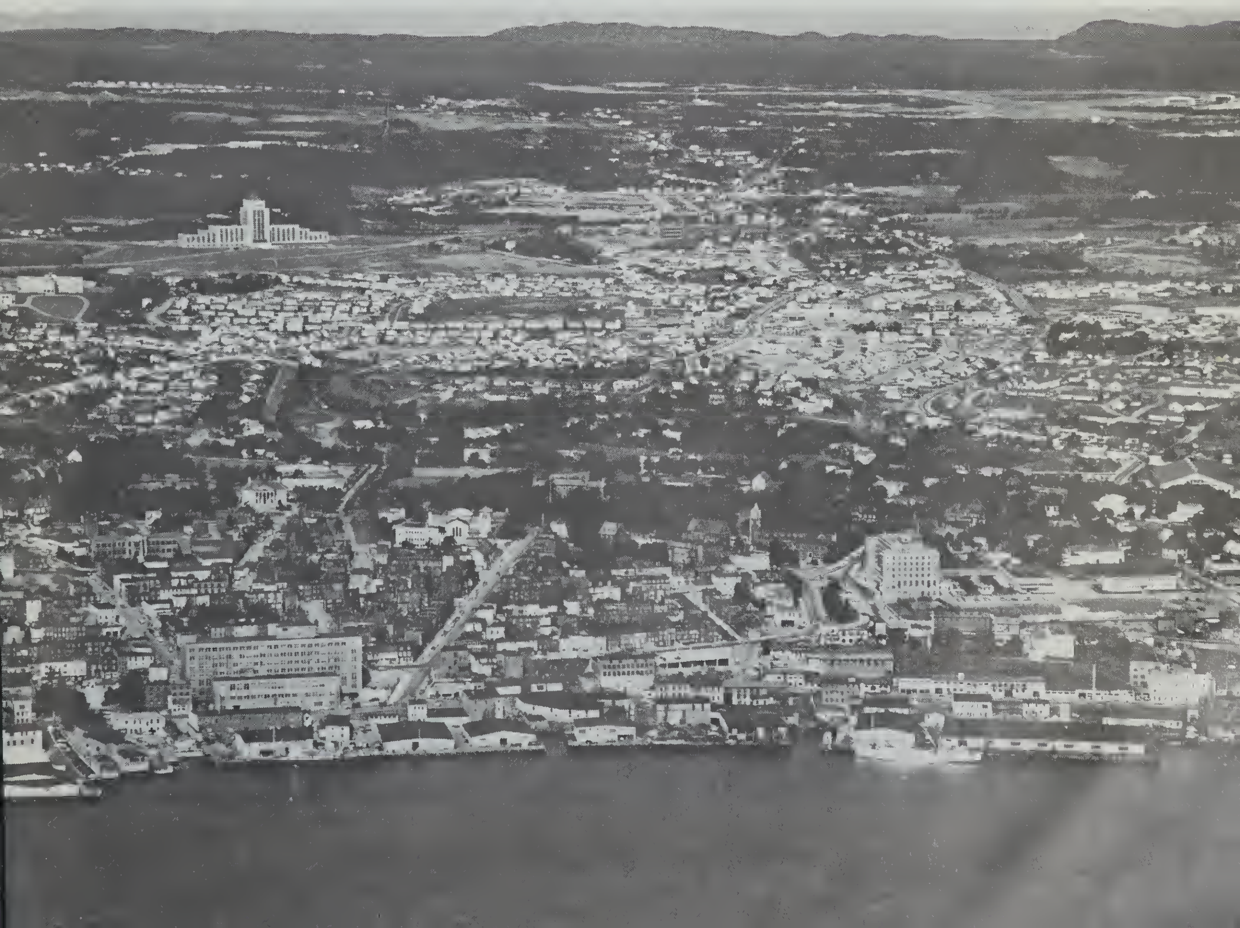


5–56. Climatic graph of St. John's, Newfoundland.

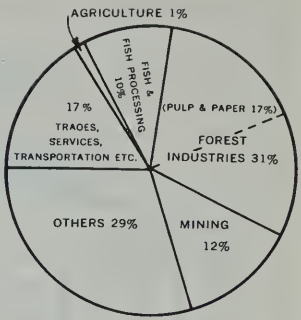
3. How would you reach St. John's from your home area? The Port aux Basques ferry from Nova Scotia carries passengers and automobiles and is timed to connect with regular train services.

4. What functions of St. John's are shown on the map?

5. Figure 5-56 is a climatic graph for St. John's. Compare the January and July temperatures with those for the area where you live. Newfoundland is almost surrounded by sea ice in March, and this does not disappear until



5–57. A view of St. John's, Newfoundland (Newfoundland and Labrador Tourist Development Office).



5–58. Estimated Income of Newfoundland, 1969.

June when icebergs may still be seen. In the interior, July temperatures are much higher. July is the worst month for fogs. Cape Race once recorded 193 continuous hours of fog in that month. At what time of the year does St. John's receive its precipitation?

Few people in Newfoundland earn a living by farming

Many fishermen have small gardens where they grow vegetables and raise a few chickens, and perhaps a cow or goats for local use. But very few people rely on farming for their living.

5–59. A freight train beside the Trans-Canada Highway near Corner Brook, Newfoundland (Canadian National Railways).

Look back at Figures 5-52, 53, and 54. Why is farming difficult in these places? Much of Newfoundland is covered by bogs, swamps, and stretches of bare rock. Glaciers carried away the soil, leaving only gravel and boulders over large areas.

The climate is not very favorable to agriculture. The late cool spring delays sowing. Why is spring so late? Lack of sunshine in summer prevents ripening of grain and fruits. Why are summers so cool and moist? Cabbages, potatoes, and turnips grow in these conditions, and serve as fodder for the dairy herds around St. John's. The short summer means a long and expensive winter feeding program for the stock. Most of the farms are located in the Avalon peninsula. From Figure 5-58 find out what percentage of Newfoundland's income is provided by agriculture.

Forests — Newfoundland's most valuable resource

Though Newfoundland has long been noted for its fisheries, and though this industry still occupies the greatest number of people, forest products are the greatest source of income at present. Look at Figure 5-58. What proportion of Newfoundland's income was derived from forests and forest products in 1969? What was the most important type of forest product?

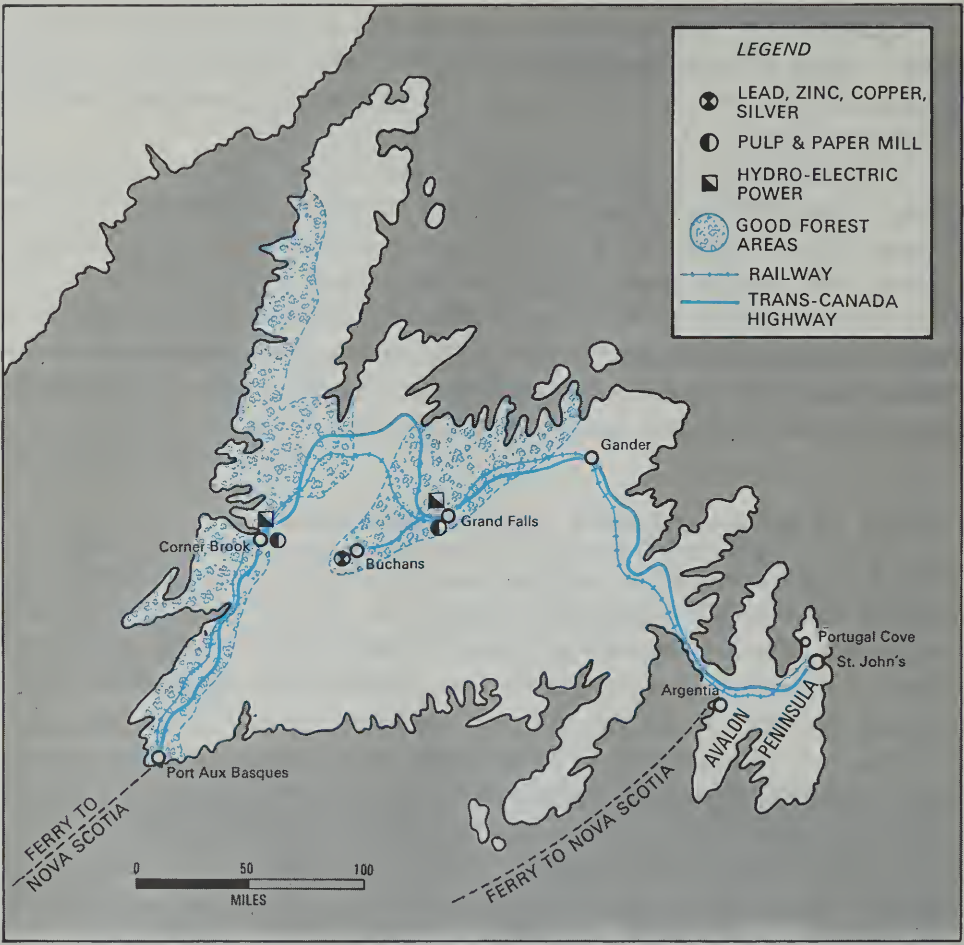
Figure 5-59 shows some of Newfoundland's most important forests near Corner Brook. Locate this town in Figure 5-60. What great industry is supplied by these forests? Name another centre which uses forest materials in this way. About what proportion of Newfoundland is covered by good quality forest? The question of a third major pulp and paper mill is often raised. How are the mills powered? Fishermen often work as part-time loggers in winter.

Newfoundland forests are particularly well suited for pulpwood. There are no large sawmills and the small mills operating do not produce enough lumber for local needs. Lumber for construction must be imported. Firewood and pit props have been important products in the past.

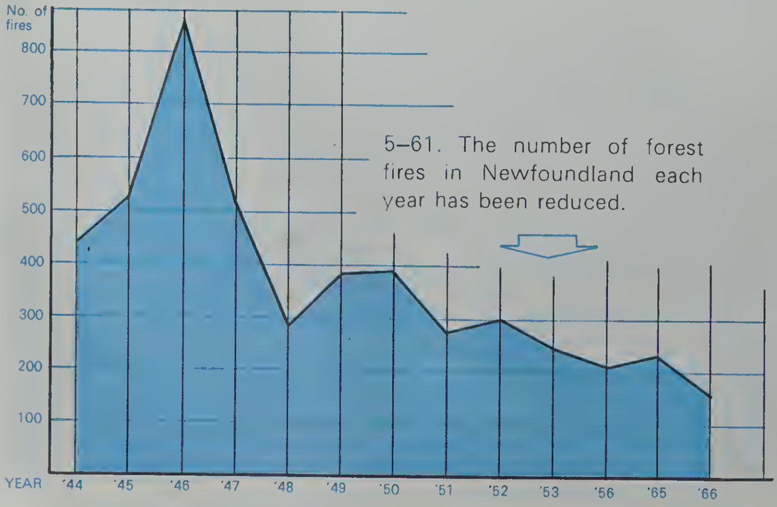
Like most forestlands in Canada, one of Newfoundland's greatest problems is forest fires. After an intensive effort Newfoundland is proud to have reduced the average number of fires in a year. Figure 5-61 shows how they have declined. Foresters attribute this mainly to a reduction in the number of railway fires, and secondarily to an advertising compaign to make everyone aware of his responsibility towards conserving forest resources.

Mineral Wealth in Newfoundland

Newfoundland is one of the world's major producers of iron ore. Where is it mined on the island according to Figure 5-60? Here is a description of a



5–60. Natural resources of Newfoundland.



5–61. The number of forest fires in Newfoundland each year has been reduced.

visit to one of the mines. What other mines in the Atlantic Provinces does this remind you of?

> Next morning, clad in hard hat, dungarees, and work jacket, I went down into one of the mines. Mine manager T. J. Gray took me to a spot two miles slant distance from the shore and 1,200 feet under the bottom of the bay . . . I grasped the chattering drill and slowly turned the feed crank that pushed the bit into the ore body. Red dust filmed my glasses. . . . From three sloping submarine ore beds off the north shore (they remove) . . . a shipload every twenty-four hours.*

Where is this ore sent to be made into iron and steel? This is only a fraction of the province's production, as most of it comes from the Labrador fields. What are the special difficulties of developing the reserves of this region? What other minerals are important in Newfoundland?

A changing way of life

For centuries Newfoundland has been famous for its fisheries. When the market for salt cod dropped sharply in 1929, one third of the people of Newfoundland were out of work.

Since then great efforts have been made to develop other resources. What other resources are available? Suggest reasons why they had not been developed earlier — what facilities did Newfoundland lack? Where are the markets for its produce? What are the problems of the physical environment?

In an attempt to attract industrialists, the Newfoundland government set up some industries to show that Newfoundland was a good place to build factories. These included a cement mill, a gypsum mill, and a birch-veneer mill. The government advertised Newfoundland as a place of cheap power and low costs, and as a cross-roads location on world trade routes. New industries have moved in, including many defence installations. Many fishermen have given up their difficult and dangerous work to take jobs in industry. With fewer fishermen, the fishing industry itself has had to modernize. Give some examples of how it has changed in the past thirty years.

An interesting exercise

Either Imagine you have been hired by the province of Newfoundland and Labrador to promote its industrial development. Prepare a folder listing all the advantages of Newfoundland and Labrador as a place in which to work and live.

Or Imagine you are an old man who grew up in Newfoundland but has been away for many years. Describe the changes you would see on a return visit.

---

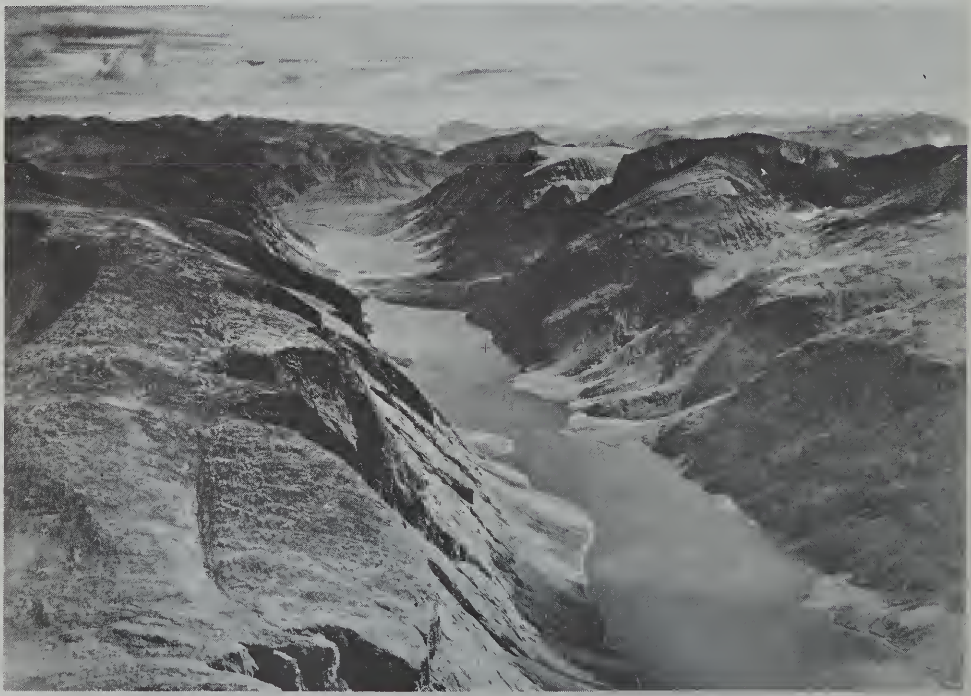
*Quoted from "Newfoundland, Canada's New Province," by Andrew H. Brown, *National Geographic Magazine,* June, 1949, (Vol. XCV, No. 6), pages 787-788.

Labrador

The mainland territory of Newfoundland and Labrador contains very few people. It is a vast wasteland of lake-strewn barrens with a very harsh climate. Review the material on Schefferville and the Quebec section of this area.

1. What vast reserves of mineral wealth are already being developed in this area? Why is co-operation with Quebec essential to this industry?
2. Figure 5-62 is a view of the coast. Where tiny fishing hamlets exist, they are locked in ice for much of the year. What valuable fisheries cause boats to come to this coast? The residents, many of them Eskimos or Indians, are called "livyeres" or "live heres." Many others from Newfoundland join them in summer.
3. What resources are evident in this Figure 5-63? Refer to Figure 5-64 and estimate what proportion of Labrador is covered by good quality forest. There has been little development, but almost every year survey licenses and options are issued. In 1969, some pulpwood was exported from the coastal sections. What are the problems in developing the forests and waterpower of this area? Compare the size of Labrador with that of the island of Newfoundland. Now compare it with the area of Southern Ontario. In the whole of Labrador there is less than two hundred miles of road. What places could you reach by travelling 200 miles from Toronto?
4. Why is Goose Bay one of the best known settlements in Labrador?

5–62. A view of the Labrador coast (Geological Survey of Canada).



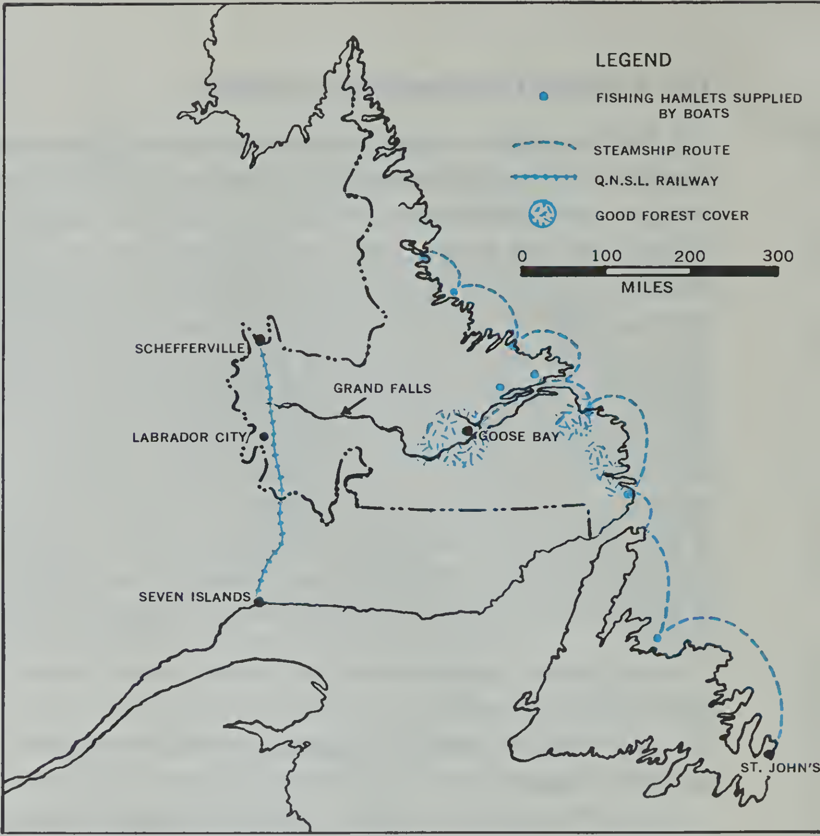
The Atlantic Provinces are changing

In this study we have seen that the various governments in the Atlantic Provinces are trying to attract new industries. These governments are also trying to co-operate with each other through the Atlantic Provinces Economic Council. By this means, they can pool their resources in various ways. For example, all four provinces now co-operate in advertising for tourists. By working together, industries and trade can be expanded more quickly. This helps to overcome the problem of a rather small total population. In 1968, the Atlantic Provinces contained 2,001,000 people. Greater Montreal in the same year contained 2,527,000 people. With just over two million people, these provinces do not have a very large domestic market for the goods they produce. However, the emphasis on new industries and more education for the people is causing living standards to rise. With their long history and beautiful scenery, the Atlantic Provinces are among the most attractive parts of Canada in which to live. Figure 5-65 shows where people live in this region.

1. Which province has its people most evenly distributed over the land? Why is this so?
2. Why do most of the people of Newfoundland and Nova Scotia live along the coast?
3. Why is there a ribbon of heavy settlement through New Brunswick? Which part of New Brunswick is very thinly settled?

5–63. Aerial view of Twin Falls, Labrador, dam project (Iron Ore Company of Canada).

5–64. The Labrador section of Newfoundland.



4. Name the four chief cities which are shown by circles on the map.

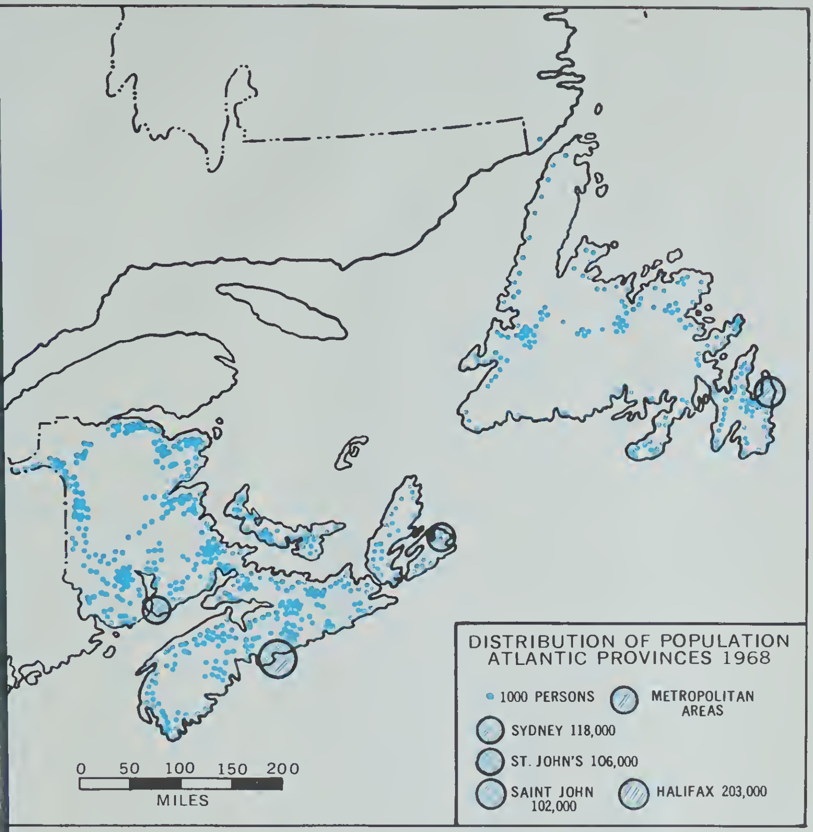
5. Suggest reasons for the slow growth in population of the Atlantic Provinces.

Making a living from land and sea

Make a copy of this table and complete it in your notebook or on a wall chart or blackboard.

	Using the resources of the land				Using the resources of the sea	
	Farmland	Forests	Minerals & power	Other	Fish	Other
Prince Edward Island	85% cultivated Mixed farming, specialty potatoes	Un-important	Un-important	Pleasing scenery Historic sites Pleasant climate — tourist industry	Commercial and tourist fishing especially lobsters	Warm water and sandy beaches — tourist industry
Nova Scotia						
New Brunswick						
Newfoundland						

1. (a) In which areas of which provinces is farming an important occupation?



5–65. Distribution of population, Atlantic Provinces, 1968.

   - (b) What are the chief crops?
   - (c) Why are the large areas of the Atlantic Provinces not suitable for farming?
2. (a) In which provinces are forest industries most important?
   - (b) What are the chief forest products?
   - (c) Name other ways in which forests are an asset to the Atlantic Provinces.
3. (a) What are the most important minerals produced?
   - (b) Which provinces have the most people engaged in mining?
   - (c) Describe some of the of the problems of the mining industries of the Atlantic Provinces.
   - (d) Which areas have good supplies of hydro-electric power?
   - (e) Where in the Atlantic Provinces have major industrial and manufacturing centres grown up?
4. (a) Suggest why many people in the Atlantic Provinces depend on the sea for their living.
   - (b) In what ways does the sea contribute to the wealth of this region?
5. Suggest ways in which the people of the Atlantic Provinces can develop and conserve their natural resources.

DATE DUE SLIP

EDUC MAR 29 '78

MAR 29 RETURN

DUE Educ APR 1 9 '78

RETURNED APR 12 '78

DUE Educ JUN 1 0 '78

RETURNED JUN 1 2 '78

DUE EDUC MAR 1 1 '87

DUE EDUC MAR 17 '87

MAR 17 RETURN

DUE EDUC NOV 1 2 '87

NOV 14 RETURN

NOV 1 4 '91

NOV 14 1991 RETURN

EDUC OCT 2 8 '92

1992 NOV 0 3 RETURN

F255

21

[illegible]

51

RECOMMENDED FOR USE
IN ALBERTA SCHOOLS

FC 75 T65 1970 V-04 C-2
TOMKINS DOREEN MARGARET 1930-
THE ATLANTIC PROVINCES

39346144 CURR

000005880067

FC 75 T65 1970 v.04 c. 2
Tomkins, Doreen Margaret, 1930-
The Atlantic Provinces;

39346144 CURR

21
39
49

2149509 CURRICULUM
EDUCATION LIBRARY

B17039

GAGE